MAC

COMMONWEALTH OF MASSACHUSETTS

massDOT
Massachusetts Department of Transportation
Highway Division

CONTRACT DOCUMENTS AND SPECIAL PROVISIONS

PROPOSAL NO.	613636-136482
P.V. =	$5,183,000.00
PLANS	YES

FOR

Federal Aid Project No. HPP/STP(BR-OFF)-003S(903)X
Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove

in the Town of

DIGHTON

In accordance with the STANDARD SPECIFICATIONS
for HIGHWAYS and BRIDGES dated 2026

This Proposal to be opened and read: **TUESDAY, SEPTEMBER 22, 2026 at 2:00 P.M.**

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DOCUMENT 00104

NOTICE TO CONTRACTORS

Electronic proposals for the following project will be received through the internet using www.bidx.com until the date and time stated below and will be posted on www.bidx.com forthwith after the bid submission deadline. No paper copies of bids will be accepted. All Bidders must have a valid vendor code issued by MassDOT in order to bid on projects. Bidders need to apply for a Digital ID at least 14 days prior to a scheduled bid opening date with www.bidx.com.

TUESDAY, SEPTEMBER 22, 2026 at 2:00 P.M. **
DIGHTON
Federal Aid Project No. HPP/STP(BR-OFF)-003S(903)X
Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove
****Date Subject to Change**

PROJECT VALUE = $5,183,000.00

Bidders must be pre-qualified by the Department in the BRIDGE – CONSTRUCTION category to bid on the above project. An award will not be made to a Contractor who is not pre-qualified by the Department prior to the opening of Proposals.

All prospective Bidders who intend to bid on this project must obtain "Request Proposal Form (R109)". The blank "Request Proposal Form (R109)" can be obtained at: https://www.mass.gov/prequalification-of-horizontal-construction-firms.

All prospective Bidders must complete and e-mail an electronic copy of "Request Proposal Form (R109)" to the MassDOT Director of Prequalification for approval: prequal.r109@dot.state.ma.us.

Proposal documents for official bidders are posted on www.bidx.com. Other interested parties may receive informational Contract Documents containing the Plans and Special Provisions, free of charge.

Bids will be considered, and the contract awarded in accordance with statutes governing such contracts in accordance with Massachusetts General Laws Chapter 30 § 39M.

The Project Bids File Attachments folder for proposals at www.bidx.com shall be used for submitting at the time of bid required information such as the Bid Bond required document, and other documents that may be requested in the proposal.

NOTICE TO CONTRACTORS (Continued)

All parties who wish to have access to information plans and specification must send a "Request for Informational Documents" to MassDOTBidDocuments@dot.state.ma.us.

A Proposal Guaranty in the amount of 5% of the value of the bid is required.

This project is subject to the schedule of prevailing wage rates as determined by the Commissioner of the Massachusetts Department of Labor and Workforce Development, and the Division of Occupational Safety, and the United States Department of Labor.

The Massachusetts Department of Transportation, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby affirmatively ensures that for any contract entered into pursuant to this advertisement, all bidders, including disadvantaged business enterprises, will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin in consideration for an Award.

This Proposal contains the "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)". The goals and timetables applicable to this proposal for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all work, are contained in Appendices A and B-80 of the above specifications.

The Contractor (hereinafter includes consultants) will comply with the Acts and Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this Contract as contained in Appendices C and D of the above specifications.

NOTICE TO CONTRACTORS (Continued)

PRICE ADJUSTMENTS

This Contract contains price adjustments for hot mix asphalt and Portland cement mixtures, diesel fuel, and gasoline. For reference the base prices are as follows: liquid asphalt $712.50 per ton, Portland cement $452.13 per ton, diesel fuel $4.372 per gallon, and gasoline $3.335 per gallon, and Steel Base Price Index 378.1. MassDOT posts the **Price Adjustments** on their Highway Division's website at
https://www.mass.gov/massdot-contract-price-adjustments

This Contract contains Price Adjustments for steel. See Document 00813 - PRICE ADJUSTMENT FOR STRUCTURAL STEEL AND REINFORCING STEEL for their application and base prices.

MassDOT projects are subject to the rules and regulations of the Architectural Access Board (521 CMR 1.00 et seq.)

Prospective bidders and interested parties can access this information and more via the internet at WWW.COMMBUYS.COM.

BY: Phillip Eng, Interim MassDOT Secretary
Jonathan L. Gulliver, Undersecretary and Highway Administrator
SATURDAY, AUGUST 22, 2026

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DOCUMENT 00210

REQUIREMENTS OF MASSACHUSETTS GENERAL LAWS
CHAPTER 30, SECTION 39R;
CHAPTER 30, SECTION 39O

July 1, 1981, updated October 2016

M.G.L. c. 30, § 39R. Award of Contracts; Accounting Statements; Annual Financial Statements; Definitions.

(a) The words defined herein shall have the meaning stated below whenever they appear in this section:

(1) “Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.

(2) "Contract" means any contract awarded or executed pursuant to sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive, of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars.

(3) “Records" means books of original entry, accounts, checks, bank statements and all other banking documents, correspondence, memoranda, invoices, computer printouts, tapes, discs, papers and other documents or transcribed information of any type, whether expressed in ordinary or machine language.

(4) “Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the awarding authority.

(5) “Audit", when used in regard to financial statements, means an examination of records by an independent certified public accountant in accordance with generally accepted accounting principles and auditing standards for the purpose of expressing a certified opinion thereon, or, in the alternative, a qualified opinion or a declination to express an opinion for stated reasons.

(6) "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which he has made and sets forth his opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the contractor.

(7) “Management", when used herein, means the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.

(8) Accounting terms, unless otherwise defined herein, shall have a meaning in accordance with generally accepted accounting principles and auditing standards.

(b) Subsection (a)(2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven, or eleven C of chapter twenty-five A, and pursuant to section thirty-nine M of chapter thirty or to section forty-four A through H, inclusive, of chapter one hundred and forty-nine, shall provide that:

(1) The contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and

(2) Until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the contractor or of his subcontractors that directly pertain to, and involve transactions relating to, the contractor or his subcontractors, and

(3) If the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the awarding authority, including in his description the date of the change and reasons therefor, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and

(4) If the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls as set forth in paragraph (c) below prior to the execution of the contract, and

(5) If the agreement is a contract as defined herein, the contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in paragraph (d) below.

(c) Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and its subsidiaries reasonably assures that:

(1) transactions are executed in accordance with management's general and specific authorization;

(2) transactions are recorded as necessary

i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and

ii. to maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

(4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Every contractor awarded a contract shall also file with the awarding authority a statement prepared and signed by an independent certified public accountant, stating that he has examined the statement of management on internal accounting controls, and expressing an opinion as to:

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

(2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

(d) Every contractor awarded a contract by the commonwealth or by any political subdivision thereof shall annually file with the commissioner of capital asset management and maintenance during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the awarding authority upon request.

(e) The office of inspector general, the commissioner of capital asset management and maintenance and any other awarding authority shall enforce the provisions of this section. The commissioner of capital asset management and maintenance may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

M.G.L. c. 30, § 39O: Suspension, Delay, or Interruption or Failure to Act by Awarding Authority; Adjustment in Contract Price; Submission of Claims.

Section 39O. Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty days before the general contractor notified the awarding authority in writing of the act or failure to act involved in the claim.

<<<<<<<<<<>>>>>>>>>>

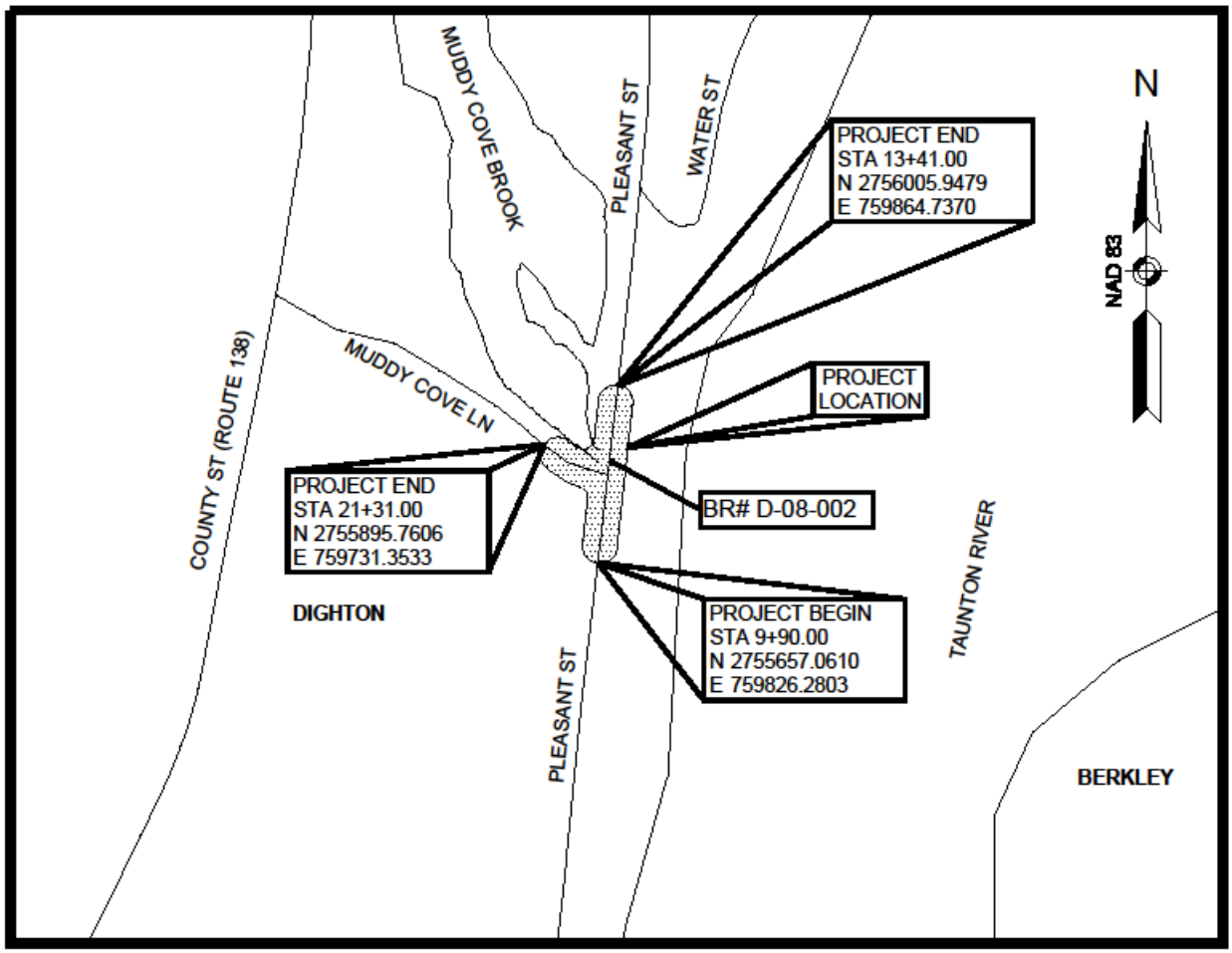
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DOCUMENT 00331

LOCUS MAP

DIGHTON
Federal Aid Project No. HPP/STP(BR-OFF)-003S(903)X
Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove



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DOCUMENT 00439

Final Report ☐

Interim Report ☐

CONTRACTOR PROJECT EVALUATION FORM

For instructions on using this form, see Engineering Directive E-10-002, Dated 4/20/2010

Date: _____

City/Town: _____ Contractor: _____

Project: _____ Address: _____

F.A. No. _____ Contract Number: _____

Bid Price: _____ Notice to Proceed: _____

Funds: State: _____ Fed Aid: _____ Current Contract Completion Date: _____

Date Work Started: _____ Date Work Completed*: _____

Contractor's Superintendent: _____

Division: (indicates class of work) Highway: _____ Bridge: _____ Maintenance: _____

*If work was NOT completed within specified time (including extensions) give reasons on following page.

	Excellent 10	Very Good 9	Average 8	7	Fair 6	5	Poor 4	% Rating
1. Workmanship								x 2=
2. Safety								x 2=
3. Schedule								x 1.5=
4. Home Office Support								x 1=
5. Subcontractors Performance								x 1=
6. Field Supervision/ Superintendent								x 1=
7. Contract Compliance								x 0.5=
8. Equipment								x 0.5=
9. Payment of Accounts								x 0.5=
(use back for additional comments)						**Overall Rating:**		

(Give explanation of items 1 through 9 on the following page in numerical order if overall rating is below 80%. Use additional sheets if necessary.)

_____ _____

District Construction Engineer's Signature/Date Resident Engineer's Signature/Date

_____

Contractor's Signature Acknowledging Report/Date

Contractor Requests Meeting with the District: No ☐ Yes ☐ Date Meeting Held: _____

Contractor's Comments/Meeting Notes (extra sheets may be added to this form and noted here if needed): _____

_____

_____

CONTRACTOR PROJECT EVALUATION FORM (Continued)

Date: _____ Contract Number: _____

INFORMATION FOR DISTRICT HIGHWAY DIRECTORS RELATING TO PREQUALIFICATION

A deduction shall be recommended for unsatisfactory performance if computed overall rating is under 80%.
A deduction may be recommended for this project being completed late due to the Contractor's fault.

RECOMMENDATIONS FOR DEDUCTIONS FROM CONTRACTORS' ASSIGNED FACTOR
(*Write Yes or No in space provided*)

I recommend a deduction for Contractor's unsatisfactory performance: _____

I recommend a deduction for project completed late: _____

Signed: _____
District Highway Director

EXPLANATION OF RATINGS 1 – 9: _____

WORK NOT COMPLETED WITHIN SPECIFIED TIME: _____

Revised: 04/28/17

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DOCUMENT 00440

Final Report ☐

Interim Report ☐

SUBCONTRACTOR PROJECT EVALUATION FORM

For instructions on using this form, see Engineering Directive E-10-002, Dated 4/20/2010

Date: _____

City/Town: _____ Subcontractor: _____

Project: _____ Address: _____

F.A. No.: _____ Contract Number: _____

Prime Contractor _____ Current Contract Completion Date: _____

Date Work Started: _____ Date Work Completed*: _____

Subcontractor's Superintendent: _____

Type of Work Performed by Subcontractor: _____

*If work was NOT completed within specified time (including extensions) give reasons on following page.

	Excellent 10	Very Good 9	Average 8	7	Fair 6	5	Poor 4	% Rating
1. Workmanship								x 2=
2. Safety								x 2=
3. Schedule								x 1.5=
4. Home Office Support								x 1.5=
5. Field Supervision/ Superintendent								x 1=
6. Contract Compliance								x 1=
7. Equipment								x 0.5=
8. Payment of Accounts								x 0.5=
(use back for additional comments)							**Overall Rating:**	

(Give explanation of items 1 through 8 on the following page in numerical order if overall rating is below 80%. Use additional sheets if necessary.)

_____ _____

District Construction Engineer's Signature/Date Resident Engineer's Signature/Date

_____ _____

Contractor Signature Acknowledging Report/Date Subcontractor Signature Acknowledging Report/Date

Subcontractor Requests Meeting with the District: No ☐ Yes ☐ Date Meeting Held: _____

Subcontractor's Comments / Meeting Notes (extra sheets may be added to this form and noted here if needed):

_____

_____

Contractor's Comments: _____

_____

SUBCONTRACTOR PROJECT EVALUATION FORM (Continued)

Date: _____ Contract Number:_____

INFORMATION FOR DISTRICT HIGHWAY DIRECTORS RELATING TO PREQUALIFICATION

A deduction shall be recommended for unsatisfactory performance if computed overall rating is under 80%.
A deduction may be recommended for this project being completed late due to the Contractor's fault.

RECOMMENDATIONS FOR DEDUCTIONS FROM CONTRACTORS' ASSIGNED FACTOR
(*Write Yes or No in space provided*)

I recommend a deduction for Contractor's unsatisfactory performance: _____

I recommend a deduction for project completed late:_____

Signed: _____
District Highway Director

EXPLANATION OF RATINGS 1 – 8: _____

_____

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WORK NOT COMPLETED WITHIN SPECIFIED TIME: _____

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_____

Revised: 04/28/17

*** END OF DOCUMENT ***

DOCUMENT 00710
GENERAL CONTRACT PROVISIONS
Revised: 03-31-26

NOTICE OF AVAILABILITY

The STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 2026, the SUPPLEMENTAL SPECIFICATIONS , the 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS; the 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING and the CONSTRUCTION STANDARD DETAILS are available online at https://www.mass.gov/massdot-highway-division-manuals-and-publications

SPECIAL PROVISIONS FOR RIGHT-TO-KNOW ACT REQUIREMENTS

The Contractor's attention is directed to Massachusetts General Laws, Chapter 111F, commonly known as the Right-To-Know Act, and to the regulations promulgated pursuant thereto. Among the provisions of the Right-To-Know Act is a requirement that employers make available to employees Materials Safety Data Sheets (MSDS) for any substance on the Massachusetts Substance List (MSL) to which employees are, have been, or may be exposed.

To ensure prompt compliance with these regulations and legislation, the Contractor shall:

1. Deliver to the Department, prior to the start of any work under this contract, copies of MSDS for all MSL substances to be used, stored, processed or manufactured at the worksite by the Contractor.

2. Train employees of the Department, who may be exposed to MSL substances as a result of the Contractor's work under this contract, with regard to those specific substances in accordance with requirements of the Right-To-Know Act.

3. Observe all safety precautions recommended on the MSDS for any MSL substance to be used, stored, processed, or manufactured at the worksite by the Contractor.

4. Inform the Department in writing regarding specific protective equipment recommended in the MSDS for MSL substances to which employees of the Department may be exposed as a result of the Contractor's work under this contract.

The Department shall not be liable for any delay or suspension of work caused by the refusal of its employees to perform any work due to the Contractor's failure to comply with the Right-To-Know Act. The Contractor agrees to hold the Department or the Commissioner of the Department harmless and fully indemnified for any and all claims, demands, fines, actions, complaints, and causes of action resulting from or arising out of the Contractor's failure to comply with the requirements of the Right-To-Know Act.

ALTERNATIVE DISPUTE RESOLUTION
Forum, Choice of Law and Mediations:

Any actions arising out of a contract shall be governed by the laws of Massachusetts and shall be brought and maintained in a State or federal court in Massachusetts which shall have exclusive jurisdiction thereof. MassDOT and the Contractor may both agree to mediation of any claim and will share the costs of such mediation pro rata based on the number of parties involved.

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DOCUMENT 00715

SUPPLEMENTAL SPECIFICATIONS

JUNE 30, 2026

The 2026 *Standard Specifications for Highways and Bridges* are amended by the following modifications, additions and deletions. These Supplemental Specifications prevail over those published in the Standard Specifications.

The Specifications Committee has issued these Supplemental Specifications for inclusion into each proposal until such time as they are updated or incorporated into the next Standard Specifications.

Contractors are cautioned that these Supplemental Specifications are dated and will change as they are updated.

DIVISION I

GENERAL REQUIREMENTS AND COVENANTS

SECTION 5.00: CONTROL OF WORK

Subsection 5.03: Conformity with Plans and Specifications
Change the MGL reference in the first sentence to Chapter 30, Section 39I (from Section 39L).

DIVISION II

CONSTRUCTION DETAILS

SECTION 200: DRAINAGE

SUBSECTION 227: DRAINAGE SYSTEM SEDIMENT

Subsection 227.30, Method of Measurement
Change the subsection number to 227.80

Subsection 227.31, Basis of Payment
Change the subsection number to 227.81

Subsection 227.31, Payment Items
Change the subsection number to 227.82

SECTION 400: SUB-BASE, BASE COURSE, SHOULDERS, PAVEMENT AND BERMS

SUBSECTION 430: CEMENT CONCRETE BASE COURSE

Subsection 430.40: General
Change Applied Crack Sealer to Hot Applied Crack Sealer.

SUBSECTION 476: CEMENT CONCRETE PAVEMENT

Subsection 476.20: Materials
Delete Preformed Bituminous Joint Filler for Concrete - M3.05.5 and add the following in M number sequence:

Preformed Expansion Joint Filler	M9.14.0

SUBSECTION 477: MILLED RUMBLE STRIPS

Subsection 477: Milled Rumble Strips
Replace this subsection with the following:

DESCRIPTION

477.20: General

The work consists of constructing rumble strips on roadways by milling grooves into finished surfaces. Milled Rumble Strips are categorized as Type A, Type B, Type C, or Type D. Type A are rectangular milled grooves at regular intervals in the paved surface, Type B rumble strips are rectangular grooves at regular intervals with designed gaps between intervals to accommodate bicyclists, and Type C and Type D rumble strips form continuous grooves in the paved surface in the form of a vertical sinusoidal wave pattern.

CONSTRUCTION METHODS

477.61: Equipment

The equipment shall self-align with the slope of the roadway surface and/or any irregularities in the roadway surface.

The Contractor shall demonstrate to the Engineer the ability to achieve the desired groove without tearing or snagging the roadway surface prior to beginning the work.

477.62: Installation of Rumble Strips

Rumble strips shall be installed in accordance with the locations, dimensions, and Type shown on the plans.

Type A and Type B rumble strips shall be installed after the longitudinal pavement markings they supplement (typically edge lines or channelizing lines) are in place. Installation of any diagonal or chevron pavement markings that cross the Type A or Type B rumble strips shall only occur after the rumble strips are in place.

Type C rumble strips shall be installed after the location of the longitudinal pavement markings they supplement (typically center lines) has been laid out, but before the pavement markings are installed. The pavement markings shall only be installed after the Type C rumble strips are in place.

Type D rumble strips shall be installed after the longitudinal pavement markings they supplement (typically center lines) are in place.

477.63: Control of the Work Area

At the end of each working day, all equipment shall be moved to a location where it does not present a hazard to traffic. The pavement shall be cleaned by sweeping and the work area shall be reopened to traffic.

Pavement millings shall become the property of the Contractor and shall be removed and disposed of off-site.

COMPENSATION

477.80: Method of Measurement

Milled Rumble Strip (Type A), Milled Rumble Strip (Type C), and Milled Rumble Strip (Type D) will be measured by the total length of installed rumble strip. Milled Rumble Strip (Type B) will be measured by the total length of installed rumble strip excluding the designed gaps. Breaks at castings, bridge decks, intersections or other breaks will not be measured for payment for all types.

477.81: Basis of Payment

Payment for Milled Rumble Strip (Type A), Milled Rumble Strip (Type B), Milled Rumble Strip (Type C), and Milled Rumble Strip (Type D) will be made at the contract unit price per foot of rumble strips, complete in place. Such payment will be full compensation for furnishing all equipment and labor for satisfactorily performing the work including cleanup and disposal of excess materials.

477.82: Payment Items

Item number	Description	Unit
477.	Milled Rumble Strip (Type A)	Foot
477.1	Milled Rumble Strip (Type B)	Foot
477.2	Milled Rumble Strip (Type C)	Foot
477.3	Milled Rumble Strip (Type D)	Foot

SUBSECTION 482: SAWCUTTING

Subsection 482.80: Method of Measurement
Replace this subsection with the following:

Sawcutting, when included in the Contract as its own bid item, will be measured for payment by the foot along the cut line, regardless of depth.

SECTION 600: HIGHWAY GUARD, FENCES AND WALLS

SUBSECTION 628: IMPACT ATTENUATORS

Subsection 628.82: Payment Items
Replace this subsection with the following:

Item number	Description	Unit
628.302	Permanent Impact Attenuator, Non-Redirective, TL-2	Each
628.303	Permanent Impact Attenuator, Non-Redirective, TL-3	Each
628.304	Temporary Impact Attenuator, Non-Redirective, TL-2	Each
628.305	Temporary Impact Attenuator, Non-Redirective, TL-3	Each
628.312	Permanent Impact Attenuator, Redirective, TL-2	Each
628.313	Permanent Impact Attenuator, Redirective, TL-3	Each
628.314	Temporary Impact Attenuator, Redirective, TL-2	Each
628.315	Temporary Impact Attenuator, Redirective, TL-3	Each
628.322	Permanent Impact Attenuator, Low-Maintenance, TL-2	Each
628.323	Permanent Impact Attenuator, Low-Maintenance, TL-3	Each

SECTION 800: TRAFFIC CONTROL DEVICES

SUBSECTION 813: WIRING, GROUNDING AND SERVICE CONNECTIONS

Subsection 813.20: General
Replace this subsection with the following:

This work shall consist of furnishing and installing wire and cable of the type and size indicated for traffic signals and other traffic control devices, ITS systems, highway lighting and related electrical systems, equipment grounding systems, new ground electrodes or connections to existing ground electrodes, power pedestals, and all materials and equipment necessary to deliver power to such systems.

Service points shown on the plans are approximate only. The Contractor shall determine exact locations for both overhead and underground service access points. The Contractor shall determine riser elevations or connections/routing to manhole facilities from the serving utility, and arrange to complete the service connections.

All work under this Subsection shall comply with the MEC and the National Electrical Safety Code.

Subsection 813.41: Grounding and Bonding Conductions
Replace this subsection with the following:

Grounding and bonding conductors shall conform to M8.16.10: Type 10 Grounding and Bonding Conductors (Solid or Stranded, Insulated or Bare).

Subsection 813.42: Ground Rods
Replace this subsection with the following:

Ground rods shall consist of driven rod(s) conforming to M8.17.0: Ground Rod or other devices approved for the purpose.

Subsection 813.44: Power Pedestal
Add this subsection in numerical order:

A Power Pedestals shall consist of a side-of-post mounted lockable load center enclosure, a load center with circuit breakers, an exterior-mounted electrical meter, signal post and base, equipment bonding, ground rod(s) conforming to 813.42: Ground Rods, and a cement concrete foundation. The enclosure, lock, circuit breakers, signal post and base, and foundation shall all be included in the Shop Drawing submission.

The enclosure shall be rated to meet or exceed NEMA 3R and be suitable for post-mounting and shall be sized appropriately to house the load center. The enclosure shall be capable of being secured with an integrated locking mechanism or by a Contractor-supplied padlock; regardless of locking mechanism, it shall be operated with a #2 key.

The circuit breakers shall be designed for single-phase, 3-wire, 120/240 VAC. Circuit breakers shall provide a means to manually operate a circuit and/or automatically open a circuit that is in overload or short circuit conditions. All circuit breakers shall be UL listed and have CSA certification.

The enclosure shall be furnished with a meter socket installed. The meter socket shall be approved by the servicing electrical utility.

The signal post and base shall conform to M10.05.1: Signal Posts and Bases and the Plans. The Contractor shall supply a square aluminum base with a natural or anodized finish and a Schedule 80 aluminum post with a brushed or spun finish, unless otherwise indicated in the Plans.

The Contractor shall supply mounting equipment recommended by the enclosure manufacturer to side-mount the cabinet to the post.

Bonding for the Power Pedestal shall utilize a #8 AWG or larger ASTM-B3 wire.

The cement concrete foundation shall conform to the Plans and M4.02.0: Concrete Produced by Stationary and Truck Mixers, M4.03.0: Concrete Produced by Volumetric Mixers, M4.06.1: Conventional Concrete, M4.09.0: Precast, Prestressed, and Prefabricated Concrete Products, M4.11.0: Evaporation Reducing Materials, and M4.12.0: Curing Materials, as applicable.

Subsection 813.64: Power Pedestal
Add this subsection in numerical order:

No work shall commence until Shop Drawings have been approved.

The Power Pedestal Cabinet shall be mounted side-of-post to the Signal Post, per the manufacturer's recommendations. The Power Pedestal Cabinet should be installed directly below the meter socket, per the Plans. If dissimilar metals are present, they shall be electrically insulated to prevent galvanic corrosion.

The Contractor shall supply the appropriate type (single pole or double pole) and number of circuit breakers included within the Power Pedestal Cabinet to provide the recommended AC power to each device receiving power from the Cabinet. The circuit breakers shall be clearly labeled as to which device they are powering (e.g. RRFB-1, RRFB-2, Warning Beacon, Speed Feedback Sign, etc.).

The Power Pedestal shall be grounded and bonded per 813.61: Equipment Grounding and Bonding and 813.62: Grounding Electrodes.

Subsection 813.80.E: Power Pedestal
Add this subsection in numerical order:

Power Pedestals will be measured by the number of Power Pedestals each furnished and installed.

Subsection 813.81.E: Power Pedestal
Add this subsection in numerical order:

Power Pedestals will be paid for at the contract unit price for each installed in place. This includes all labor and materials required for a working system.

All costs associated with grounding and bonding of Power Pedestals shall be considered incidental to the item.

All costs associated with providing service connections to Power Pedestals shall be paid for under their respective pay items.

Subsection 813.82: Payment Items
Change the unit of measure for items 813.80 and 813.81 to Each and add the following pay item:

Subsection 815.82: Payment Items
Delete payment items 818.90 to 818.94, 819.39, 819.832, 819.52, 819.53, 819.60 to 819.64, 819.70, 819.71, 819.72, 819.800, 819.801, 819.802, 819.803,:819.810, 819.811, 819.820, 819.821, 819.850, 819.851, 819.852.

Add the following payment item:

813.90	Power Pedestal	Each

SUBSECTION 819: TRAFFIC SIGNAL DETECTION

Subsection 819: Traffic Signal Detection
Add this subsection:

DESCRIPTION

819.20: General

Work under this Subsection consists of furnishing and installing detection devices for vehicles, bicycles, pedestrians, and other road users.

MATERIALS

819.40: General

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Material	Section
Vehicle Detection Systems	M10.08.0
Passive Stop Line Detectors	M10.08.1
Passive Advanced Detectors	M10.08.2
Pedestrian Detectors	M10.09.0
Pedestrian Pushbutton Assembly	M10.09.1
APS Pushbutton Assembly	M10.09.2

The Contractor shall furnish Vehicle Detection Systems (VDS) and Pedestrian Detectors that are listed on the QTCE.

Any software, firmware, cables, or adapters required to program, adjust, fine-tune, or monitor VDS or Pedestrian Detectors shall be provided by the Contractor. VDS and Pedestrian Detectors shall have the latest versions of software and/or firmware installed prior to inspection. Manufacturer updates to software and/or firmware shall be included at no cost for the life of the products.

819.40.A: Vehicle Detection Systems

A VDS shall consist of one or more Internet Protocol (IP) -based detector/sensor assemblies and a cabinet interface device that is installed in a Traffic Signal Controller Cabinet or similar device.

Stop Line VDS shall be capable of providing motor vehicle and bicycle detection at all locations shown on the Plans. The Contractor may furnish a VDS that utilizes a single detector/sensor or multiple, as long as all stop line motor vehicle and bicycle detection zones are encompassed and the traffic signal or other device utilizing the detection can operate per the Plans. All Passive Stop Line Detectors required to provide stop line detection at an intersection shall be included in the cost of a single Stop Line Vehicle Detection System.

If the Contractor furnishes a Stop Line VDS that does not utilize an integrated video monitoring system, a separate video monitoring system per 819.41: Video Monitoring System shall be furnished and installed at no additional cost.

Advanced VDS shall be capable of providing motor vehicle detection on a single approach, at the location shown on the Plans. The Contractor Shall furnish Passive Advanced Detectors that utilize, and are compatible with, the same interface device installed in the Traffic Signal Controller Cabinet, or similar device, as the Stop Line VDS.

All VDSs shall be furnished with manufacturer-supplied mounting hardware.

If multiple VDSs over multiple locations are supplied under a single contract, all components furnished by the Contractor shall be of the same make and model.

819.40.B: Pedestrian Detectors

Pedestrian Pushbutton Assembly and Accessible Pedestrian Signal (APS) Pushbutton Assembly shall both include a pushbutton, sign, housing, manufacturer-specified mounting hardware, and wiring. The Contractor shall review the Contract Documents to determine if one or more in-cabinet control units are required to meet the pedestrian detector type and operational requirements. In-cabinet control units shall be considered incidental to the cost of the item.

The Contractor shall provide a pushbutton housing that conforms to the shape of the pole it is mounted to or shall furnish and install a manufacturer-supplied saddle to provide a flush, secure fit, at no additional cost.

An APS Pushbutton Assembly shall include a pedestrian pushbutton sign that conforms to the Plans. If the sign is not integral to the housing, separate mounting equipment shall be furnished and installed by the Contractor. All costs associated with the sign and mounting equipment shall be considered incidental to the cost of the item.

819.41: Video Monitoring System

When required by 819.40.A: Vehicle Detection Systems, the Contractor shall furnish and install a Video Monitoring System. The Video Monitoring System shall consist of one or more IP-based 4K, 1080p, H.264 dome-type CCTV cameras; mounting hardware, including but not limited to: brackets, bands, straps, posts, plates, and pole mount adapters; power distribution and conditioning equipment including surge suppression; and all necessary cabling and wiring.

All equipment provided for the Video Monitoring System shall be commercial, off-the-shelf products. Custom equipment designed specifically for the Contract will not be accepted. All cabling and wiring shall be recommended by the manufacturer and rated for outdoor use. Any special wiring or connectors required by the manufacturer shall be identified in the Shop Drawings.

The Video Monitoring System shall conform to National Electrical Manufactures Association (NEMA) standards, Underwriters' Laboratory (UL), and Military Standards (MIL), as applicable. All components of the Video Monitoring System shall be new and still under production by the manufacturer. Obsolete, no longer produced, and/or no longer supported components will not be accepted.

The Video Monitoring System shall be capable of operating in temperatures ranging from -29°F to +165°F.

The camera shall meet or exceed the requirements found in Table 819.41-1:

Table 819.41-1: Minimum Camera Requirements

Feature	Requirement
Zoom Ratio	The minimum zoom ratio shall be 30x Optical and 12x Digital
Camera Type	The camera shall be an IP-type CCTV camera.
Auto Focus	The camera shall include auto focus with a selection for manual override of auto focus.
Lens Aperture Ratio	Typical: F/1.6 to F/4.7 (wide to telephoto)
On-Screen Direction	The CCTV camera shall display on-screen azimuth indications.
Privacy Zones	The CCTV camera shall be programmable to blank out up to 8, four-sided areas to electronically block portions of the camera's field of view from being

Feature	Requirement
	displayed. These privacy zones shall move and adjust sizing synchronously with camera movements and degree of lens zooming.
On-Screen Labels, Text and Titles	The CCTV camera shall display a minimum of 20 programmable characters for on-screen camera ID, preset position, sector, and alarm titles.
On-Screen Labels, Text and Title Positioning	The position of the on-screen text shall be adjustable to appear at selectable positions on the CCTV camera screen image.
Number of Pixels	The camera shall provide a minimum of 1280H x 720V effective pixels. The camera shall be capable of being configured to operate at all standard lower resolutions down to 320H x 180V effective pixels.
Image Sensor Size	The camera shall include an image sensor of 1/1.8 in., nominal.
Lens Focal Length	The camera shall include a zoom lens of 4.3 mm to 129 mm, minimum focal length.
Color and Black & White Image Selection	The camera shall have Color and Black & White video image display modes incorporating both automatic and manual override image mode selection. The camera shall transition automatically to a Black & White mode (when in automatic mode) when the luminance level reaches a user predefined threshold. At all times the camera shall provide a full motion video output at 30 frames per second.
Image Stabilization	The CCTV camera shall incorporate electronic image stabilization to reduce the effects of vibration and wind gusts on the displayed video image.
Automatic Iris	The camera shall include both automatic iris control and an override for manual iris adjustments.
Wide Dynamic Range	The CCTV camera's wide dynamic range shall be 120 dB.
CCTV Camera Optical Sensitivity	The camera's sensitivity shall be sufficient to provide a clear, usable color video image display with a scene illumination of ≤ 0.1 lux at an aperture of F1.6, nominal.
Power Input	The power input for the CCTV camera and dome shall be PoE+.
Alarms	No alarm contacts shall be wired.

The Contractor shall mount the camera at a location that optimizes line-of-sight for all approaches. The view of each approach shall have a clear line of sight, free from obstructions from trees, overhead wires, buildings, and/or other obstructions. If the Contractor is unable to provide a clear line of sight for all approaches to the satisfaction of the Engineer, a second camera, including mounting hardware, cabling, and wiring, shall be furnished and installed on a different traffic signal structure at no additional cost.

The Contractor shall be responsible for the following items prior to installation:

- Ensure that all components are assembled and factory-tested prior to delivery to the project site.
- Fully configure the camera settings, including but not limited to: camera resolution, camera address, default settings, and pre-set and home positions, per the direction of the Engineer.
- Coordinate with the Engineer to set the camera address number to provide unique identification that is compatible with the CCTV camera addressing schema utilized by the Department.

The Contractor shall deliver the camera(s) fully assembled to the project site.

The Contractor shall provide up to 3 hard copy sets of operating manuals, service manuals, and maintenance instructions for all components of the system. At the request of the Engineer, the number of copies may be reduced if the manuals are provided in .pdf file format.

819.42: Material Warranties

All components of Vehicle Detection Systems, including Video Monitoring Systems, and Pedestrian Detectors shall include a minimum two-year manufacturer's replacement warranty that will commence upon acceptance by the Engineer. The warranty shall cover any manufacturing defects of the products.

Construction Methods

819.60: General

The Contractor shall use discretion in installing the detectors/sensors at locations that optimize the performance of the VDS and to eliminate false calls. The Contractor shall notify the Engineer if the size or location of the detection zones differs from what is shown in the Plans. At the direction of the Engineer, the Contractor will be required to readjust the location of the detection zones and/or modify the detection channels if false calls are observed or the traffic signal system is not operating per the Plans due to the performance of the VDS; this work shall be considered incidental to the cost of the item.

The Contractor shall use manufacturer-specified mounting hardware for all detectors/sensors. If mounted to mast arms or strain poles, any addition weight or wind loading from the detector/sensor shall be accounted for in the structural calculations.

The Contractor shall install the cabinet interface device in the traffic signal controller cabinet. The cabinet interface device shall be connected to the Field Monitoring Unit (FMU) or an ethernet switch in the traffic signal controller cabinet. All communication between devices shall be IP-based. Use of external communications that are not routed through the FMU is prohibited.

The Contractor shall furnish and install low voltage power cabling surge protection equipment required for all data and power lines associated with VDS, Video Monitoring Systems, and/or Pedestrian Detection Systems entering the traffic signal controller cabinet.

The Contractor shall install the manufacturer-specified cable between the detectors/sensors to the cabinet interface device in the traffic signal controller cabinet via traffic signal structures, conduit, and/or pullboxes. This shall include all connectors, sealing tape, and incidental work to complete the connection(s). All equipment installation and wiring shall be installed in a neat and orderly manner and per the manufacturer's specifications.

The VDS shall be powered through one of the power outlets available on the FMU. The VDS shall be capable of being powered down and remotely restarted through remote control of the power outlet on the FMU.

Under the supervision of the Engineer, the Contractor shall install the VDS software that allows visual confirmation of the detection zones on Department computers.

The Contractor shall install Pedestrian Detectors at the location(s) and mounting height shown on the Plans.

The Contractor shall mount and orient the APS Pushbutton Assembly in a manner so that the vibrotactile arrow is aligned parallel to the crosswalk.

Prior to acceptance, the Contractor shall furnish all passwords for Vehicle Detection Systems and Pedestrian Detectors to the Engineer. The use of default passwords is prohibited.

819.61: Programming APS Pushbuttons

Each APS Pushbutton shall have an audible walk indication during the associated walk interval. The duration of the audible walk indication shall match the duration of the walk interval unless the pedestrian signal is programmed to rest in walk. If programmed to rest in walk, the audible walk indication shall be limited to 7 seconds in length but may be recalled by a subsequent button press during the walk interval.

The APS Pushbutton locator tone and audible walk indication shall be programmed to broadcast at volume 5 dBA louder than ambient sound, except when audible beaconing is provided in response to an extended pushbutton press. The broadcast volume shall be programmed to not exceed 100 dBA at 3 ft. from the emitter, regardless of ambient noise conditions.

The locator tone shall have a duration of 0.15 seconds or less and shall repeat at 1-second intervals.

The locator tone shall be active during all signal intervals, except for the following conditions:

- When the audible walk indication is being broadcast.
- If the signal is programmed to rest in walk, the locator tone shall resume 7 seconds after the start of the walk interval.
- The locator tone shall be disabled if the traffic control signal or pedestrian hybrid beacon is operating in an emergency or fault flashing mode.

The locator tone shall be active during the flashing yellow and alternating flashing red intervals of a pedestrian hybrid beacon phasing sequence.

Upon button press, the locator tone at that pushbutton shall be interrupted and a speech message of “Wait” shall be broadcast.

The normal status of the pilot light shall be dark. The pilot light shall illuminate upon button press and stay illuminated until the start of the walk interval, when it shall return to dark. If the associated pedestrian phase is set to pedestrian recall, the pilot light shall stay illuminated for all intervals except for the walk interval.

The audible walk indication shall an audible tone unless a speech message is called for in the Plans. The audible tone shall repeat at 8 to 10 ticks per second, in multiple frequencies, with the dominant component at 880 Hz.

If a speech message is used, the following shall apply:

- For exclusive pedestrian phases, during the walk interval the speech message shall be: “walk sign is on for all crossings.” This message shall be broadcast a single instance.
- *For concurrent pedestrian phases, during the walk interval the speech message shall be: “[STREET NAME]. Walk sign is on for [STREET NAME].” This message shall be broadcast a single instance.
- If the signal is programmed to rest in walk, the concurrent pedestrian speech message shall be repeated upon each subsequent button press.

*Note: See Plans for Street Name information.

The vibrotactile arrow shall vibrate during the walk interval.

The Contractor shall include a fault relay that will default to placing a constant pedestrian call from any pushbutton assembly that fails to communicate back to the in-cabinet control unit.

The Contractor shall connect the in-cabinet control unit to the Field Monitoring Unit (FMU) via an open ethernet port.

819.62: VDS Testing and Evaluation

After the VDS is installed, but prior to acceptance, the Contractor shall conduct an evaluation of the system in the presence of the Engineer. The purpose of the evaluation is to certify the system is operating per the requirements of M10.08.0: Vehicle Detection Systems, M10.08.1: Passive Stop Line Detectors, and M10.08.2: Passive Advanced Detectors, as applicable. The Contractor shall submit their testing and evaluation plan as a part of the Shop Drawing submittal.

The testing and evaluation shall take place for a minimum of 30 minutes under moderate live traffic conditions. Testing shall not be conducted during inclement weather.

If the Engineer determines that the system does not meet the operational requirements, the Contractor will be required to adjust the location, orientation, and/or number of detector/sensors. The Contractor may also adjust the location of the detection zones at this time. Upon completion of this work, the system shall be reevaluated in the presence of the Engineer. This process shall be repeated until the operational requirements are met.

All costs associated with testing and evaluation of the VDS, including the repositioning or addition of new materials, shall be considered incidental to the item.

Compensation

819.80: Method of Measurement

Stop Line Vehicle Detection Systems will be measured as each system furnished and installed.

Advanced Vehicle Detection Systems will be measured as each system furnished and installed.

Pedestrian Pushbuttons and APS Pushbuttons will be measured as each pushbutton furnished and installed.

819.81: Basis of Payment

Stop Line Vehicle Detection Systems will be paid for each system installed at an intersection. For the purposes of this work, an intersection shall be defined as all roadway, path, and/or trail approaches controlled by a single traffic signal controller. Where a Video Monitoring System is required per 819.40: General, it shall be included in the cost of Item 819.840.

Advanced Vehicle Detection System will be paid for each system installed on an intersection approach.

Pedestrian Pushbutton and APS Pushbutton will be paid for each pushbutton assembly installed. The pedestrian sign mounted directly above the pushbutton shall be considered incidental to the item.

The unit cost of each vehicle detection system or pushbutton item shall include all wiring, cabling, mounting hardware, software, firmware, video monitoring system (if required), testing, calibrating, Department Acceptance, training, and all other labor and materials required for the system(s) to operate per the Plans.

819.82: Payment Items

Item number	Description	Unit
819.840	Stop Line Vehicle Detection System	Each
819.845	Advanced Vehicle Detection System	Each
819.850	Pedestrian Pushbutton	Each
819.855	APS Pushbutton	Each

SUBSECTION 850: TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS

Subsection 850.25: Arrow Board
Subsection 850.45: Arrow Board
Subsection 850.65: Arrow Board
Delete these subsections.

Subsection 850.80: Method of Measurement
Delete the 7th paragraph beginning with "Arrow Board will be measured …"

Subsection 850.81: Basis of Payment
Delete the 7th paragraph beginning with "Arrow Board will be paid for …"

Subsection 850.82: Payment Items
Revise description and unit of item 852. to Safety Signing for Traffic Management / Square Foot.
Delete item number 856.

SUBSECTION 856: CONNECTED WORK ZONE NOTIFICATION SYSTEM AND ASSOCIATED DEVICES

Subsection 856: Connected Work Zone Notification System and Associated Devices
Add this new subsection.

DESCRIPTION

856.20: General

The Connected Work Zone Notification System (CWZNS) is a system of field devices that transmit real-time location-based data about work zones. CWZNS field device data is provided in a Work Zone Data Exchange (WZDx) Device Feed in accordance with the United States Department of Transportation (USDOT) WZDx Specification. The Device Feed is consumed by the MassDOT Work Zone Manager (WZM) application.

The Contractor shall be responsible for furnishing, installing, repositioning, operating, maintaining, and removing these CWZNS devices.

MATERIALS

856.40: General

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Material	Section
Connected Work Zone Notification System Devices	M10.18.0
Location Marker	M10.18.1
Connected Arrow Board	M10.18.2

End Location Markers shall conform to M10.18.1: Location Marker and include power and communication status lights and an on/off switch.

856.41: Arrow Board

Arrow Boards shall consist of a matrix of yellow elements that may be illuminated in flashing or sequential patterns, on a non-reflective, black background. The light output from the Arrow Board shall meet the minimum legibility distance, per the MUTCD. The elements shall be capable of at least 50% dimming from full brilliance to avoid nighttime glare. Arrow Boards that are continuously operational in both daylight and nighttime conditions shall automatically adjust the light output based upon ambient light conditions.

The mounting height of the Arrow Board, when in operation, shall be per the Plans.

The minimum dimensions and number of elements for Arrow Boards shall be per Table 856.41-1.

Table 856.41-1: Arrow Board Dimensions and Elements

Item Numbers	MUTCD Type	Minimum Dimensions (width by height)	Minimum Number of Elements
856.060, 856.160	B	60 in. by 30 in.	13
856.096, 856.196	C	96 in. by 48 in.	15

Arrow Boards shall be capable of the following operating modes, per the MUTCD:

- Four Corners Flashing Caution
- Alternating Diamond Caution
- Flashing Arrow (left or right)
- Sequential Chevron (left or right)
- Flashing Double Arrow

Arrow Boards that are categorized as "Connected Arrow Boards" (Items 856.160 and 856.196) shall meet the requirements of M10.18.2: Connected Arrow Board in addition to the requirements of an Arrow Board described in this Subsection.

856.42: Shop Drawings

Within 30 days of the Notice to Proceed, the Contractor shall submit to the Engineer for review and approval cut sheets for each model of CWZNS device to be used. The cut sheets shall document device specifications, including details of how the CWZNS device will communicate. Work that requires the use of CWZNS devices shall not commence until the submission has been approved.

CONSTRUCTION METHODS

856.60: General

At least 15 days prior to deploying CWZNS devices, the Contractor shall visit the site to verify cellular coverage. If the devices the Contractor plans to deploy do not have coverage, the Contractor shall swap out the cellular modem, SIM card, or both to a carrier that provides coverage. If no adequate cellular coverage exists from 4G LTE or 5G providers, the Contractor shall immediately notify the Engineer.

The Contractor shall install CWZNS devices at the locations shown on the Plans.

Per the WZDx Specification Device Feed, an End Location Marker shall have a single MarkedLocation with the "type" property as "work-zone-end".

The Contractor shall install and power on the End Location Marker coinciding with the deployment of the temporary traffic control setup that calls for its use. The Contractor shall power down and remove the Location Marker at the conclusion of the removal of the temporary traffic control setup. If the location of the work moves during a work shift, the Contractor shall power down the Location Marker, relocate it, and then power it back on.

The operating mode for the Arrow Board or Connected Arrow Board shall be per the Plans. When activated, the minimum element on-time shall be 50% for the flashing mode, with equal intervals of 25% for each sequential phase. The flashing rate shall be not less than 25 or more than 40 flashes per minute.

If a Connected Arrow Board is being used to transmit its location without utilizing other arrow board functions, such as operating a Flashing Arrow, the arrow board shall remain dark and removed from the roadway or protected from approaching traffic while the data is being transmitted.

The Contractor shall be responsible for remediating any CWZNS device that is not operating as specified, at no additional cost to the Department.

CWZNS devices that are lost, stolen, vandalized, damaged, destroyed, or deemed unacceptable while their use is required on the project shall be replaced by the Contractor at no additional cost to the Department.

COMPENSATION

856.80: Method of Measurement

Arrow Boards and Connected Arrow Boards will be measured by the Day. Each period of up to 24 hours during which an Arrow Board or Connected Arrow Board is in use will be measured as one day, regardless of the number of times that the unit is positioned, repositioned, removed, or returned to service.

End Location Markers will be measured by the Day. Each period of up to 24 hours during which a End Location Marker is in use will be measured as one day, regardless of the number of times that the unit is positioned, repositioned, removed, or returned to service.

856.81: Basis of Payment

Arrow Boards and Connected Arrow Boards will be paid for at the contract unit price per day which shall include full compensation for labor and materials, positioning, repositioning, and removing or returning to service.

End Location Markers will be paid for at the contract unit price per day which shall include full compensation for labor and materials, positioning, repositioning, and removing or returning to service.

If an End Location Marker is attached to another traffic control device that is not otherwise called for in the Plans or Specifications, that ancillary device shall be considered incidental to the cost of the End Location Marker.

Licenses, fees, communication costs, power costs, and access to real-time and recorded data associated with the Device Feed for CWZNS devices shall be considered incidental to the cost of the item.

The Department will not pay for CWZNS devices that fail to operate as specified.

856.82: Payment Items

Item number	Description	Unit
856.060	Arrow Board (Type B)	Day
856.096	Arrow Board (Type C)	Day
856.160	Connected Arrow Board (Type B)	Day
856.196	Connected Arrow Board (Type C)	Day
856.201	End Location Marker	Day

SECTION 900: STRUCTURES

SUBSECTION 901: CEMENT CONCRETE

Subsection 901.20: Materials

Delete Asphaltic Materials – M3, Preformed Bituminous Fiber Joint Filler – M3.05.3 and add the following in M number sequence:

Preformed Expansion Joint Filler	M9.14.0

SUBSECTION 983: REVETMENT

Subsection 983.40: General
Delete Preformed Bituminous Fiber Joint Filler – M3.05.3 and add the following in M number sequence:

Preformed Expansion Joint Filler	M9.14.0

DIVISION III

MATERIALS SPECIFICATIONS

SECTION M3: ASPHALTIC MATERIALS

Subsection M3.05.5: Preformed Bituminous Joint Filler for Concrete
Delete this subsection.

SECTION M9: MISCELLANEOUS MATERIALS

Subsection M9.14.0: Preformed Expansion Joint Filler
Replace this subsection with the following:

Preformed expansion joint filler for concrete applications and structural construction shall meet the requirements specified herein. The Contractor shall provide certified test data which documents compliance with the required physical properties. The certified test data shall be submitted to the Engineer for approval.

Table M9.14.0-1: Types of Preformed Expansion Joint Filler

Specification	Type and Description
AASHTO M 153	Type I – Sponge Rubber Type II – Cork Type III – Self-Expanding Cork Type IV – Polyurethane-Bonded Recycled Rubber
AASHTO M 213	Type I – Asphalt-Saturated Cellulosic Fiber Type II – Asphalt Binder-Cork with Asphalt-Saturated or Glass Fiber Felt Type III – Polyurethane-Bonded Recycled Rubber
ASTM D1752	Type IV – Recycled PVC
ASTM D7174	Type I – Closed-Cell Polyethylene or Blended Polyethylene Foam
ASTM D8139	Type I – Closed-Cell Polypropylene Foam

Subsection M9.14.2: Closed Cell Foam Joint Filler
Delete this subsection:

M10.03.1: Field Monitoring Unit

All Field Monitoring Units (FMU) shall be compatible with the MassDOT Critical Operations Multi-jurisdictional Modular System (MCOMMS), cloud-based management system.

Subsection M9.14.2: Closed Cell Foam Joint Filler
Delete this subsection:

SECTION M10: TRAFFIC CONTROL DEVICES

Subsection M10.03.1: Field Monitoring Unit
Add these new subsections:

M10.03.1: Field Monitoring Unit

All Field Monitoring Units (FMU) shall be compatible with the MassDOT Critical Operations Multi-jurisdictional Modular System (MCOMMS), cloud-based management system.

FMUs shall be capable of operating independently from the brand of traffic signal controller, vehicle and pedestrian detection systems, battery backup system (BBS), and any other Ethernet-based, web accessible device present in the traffic signal controller cabinet.

M10.03.1.A: Hardware

The FMU shall communicate via an Ethernet port with an RJ45 connector and have an integrated Ethernet switch with a minimum of four ports.

The FMU shall be powered via standard 120 VAC input power. The FMU shall include an integrated battery and battery charging/monitoring circuit that will allow the FMU to fully function even if all other electrical service to the cabinet has been interrupted. The battery shall continue to supply the FMU with power for a minimum of 5 hours on a single charge.

The FMU shall have an integrated GPS that will allow for automated telemetry without additional configuration. The GPS shall be capable of providing a time sync pulse to the internal clock of a connected traffic signal controller. The FMU shall utilize the integrated GPS to geolocate itself on a map via the FMU management software.

M10.03.1.B: Software

The configuration of the FMU shall be accomplished by accessing FMU management software via an internet browser. It shall be possible to configure the FMU without any special software.

The FMU shall operate without requiring a static IP address. The only configuration required at the FMU is to enter the URL to the host of the FMU management software.

The FMU shall utilize HTTPS protocols and XML data structure for communications with the FMU management software. The data shall be scalable for future expansion; proprietary protocols shall not be used.

M10.03.1.C: Wireless Connectivity

The FMU shall be supplied with an internal 4G LTE cellular modem.

The modem shall support future upgrades to 5G service, when available, and shall be compatible with SIM cards from multiple cellular carriers.

M10.03.1.D: Remote Access

Remote access to any traffic signal cabinet component that has a web interface via the FMU shall not require the end user to create a separate Virtual Private Network (VPN) connection.

Subsection M10.08.0: Vehicle Detection Systems
Subsection M10.08.0: Vehicle Detection Systems
Subsection M10.08.0: Vehicle Detection Systems
Add theses new subsections:

M10.08.0: Vehicle Detection Systems

Vehicle Detection Systems (VDS) shall be capable of detecting the presence of all motor vehicle types and bicycles in designated areas and sending corresponding detector outputs to a traffic signal controller.

All in-cabinet components of VDS shall be compatible with the following standards:

- ATCC 5301 v02
- ATC 5201 v06
- NEMA TS2 environmental standards

Through an ethernet-based connection to the detection module and/or cabinet interface device in the field or through the internal network of the traffic signal controller cabinet, the VDS shall support remote management of motor vehicle and bicycle detection configurations and access to data including:

- The number, location, and size of detection zones.
- Configuration of the detector channel and assigned phase for each zone.
- Configuration of detection zones for signal performance measurement data collection.
- The ability to add and remove users.
- Signal performance data:
  - Monitoring and recording the status of the phase and detector channels from the traffic signal controller through the SIU bus at a frequency of no less than 10 times per second.
  - Estimation of the speed of vehicles at defined, user-configurable points, such as entering or exiting a detection zone.
  - Retrieval of the signal performance data through an http-based Application Programming Interface (API), or equivalent process, in .xml, .json, or .csv format.
  - The data shall be available in a per vehicle format, be viewable in real time, and store at least 168 hours of data locally on the device.

VDS shall be capable of supporting user-based restrictions to limit functionality, including:

- The ability to make changes to the VDS settings.
- The ability to view imagery or digital video streams.
- The ability to view and download signal performance data.

VDS shall be capable of automatically determining if the system's ability to accurately detect vehicles and shall default to a constant call state if this system error is detected.

VDS shall be capable of classifying vehicles based upon length and/or number of axles.

VDS shall be capable of performing all detection, classification, and data collection functions in the absence of an internet connection.

VDS shall be capable of providing remote access to the latest images or digital video stream of all IP video units through either an HTTP request or through a Real Time Streaming Protocol compatible with RFC2326 standards. VDS that do not utilize video shall be able to display the current state of the vehicle detection zones and approximate vehicle locations in a digital twin model of the intersection.

M10.08.1: Passive Stop Line Detectors

Passive Stop Line Detectors shall demonstrate a reliability of 99% or greater for vehicle detection functions.

Passive Stop Line Detectors shall be able to track and classify turning movements for all motor vehicle types and bicycles and shall demonstrate an accuracy of 95% or greater for turning movement counts.

M10.08.2: Passive Advanced Detectors

Passive Advanced Detectors shall be capable of detecting all motor vehicle types at a minimum distance of 600 ft upstream of the stop line.

Subsection M10.09.0: Pedestrian Detectors
Subsection M10.09.1: Pedestrian Pushbutton Assembly
Subsection M10.09.2: APS Pushbutton Assembly
Add theses new subsections:

M10.09.0: Pedestrian Detectors

Pedestrian Detectors shall be capable of detecting the presence of pedestrians and placing a corresponding call for a phase in a traffic signal controller or similar device.

Pedestrian Detectors may be pushbuttons or passive detection devices.

Components of Pedestrian Detectors shall meet NEMA TS2 compliance for temperature and humidity, mechanical shock and vibration, transient voltage protection, transient suppression, and electrical reliability.

If Pedestrian Detectors include an in-cabinet control unit, it shall meet the following requirements:

- Operate on a cabinet-supplied 120 VAC power source.
- Include labelled LED indicators for each channel operation.
- Include a 10/100BaseT, RJ45 ethernet connector port.
- Capable of communication with the Pedestrian Detectors to allow for remote programming and firmware updates via the ethernet connection.
- Capable of supporting a minimum of 4 pedestrian detectors per NEMA pedestrian phase and up to 16 pushbuttons.
- Will automatically reset upon loss of internal communication.

M10.09.1: Pedestrian Pushbutton Assembly

A Pedestrian Pushbutton Assembly shall consist of a pushbutton, a sign, and a housing to mount those devices to a post.

The pushbutton shall be a minimum of 2 in. in diameter and the force to activate it shall be no greater than 5 lbs. The pushbutton must be weather-tight and tamper-resistant.

The pushbutton shall meet one of the following criteria:

- A normally open, mechanical phenolic enclosed, positive-acting, spring-loaded, audible (i.e., click) snap-action switch with single pole, single throw contacts; or
- A piezo-driven solid state switch rated for a minimum of 50 V, a minimum of 20 million cycles, and capable of providing an audible indication of actuation.

The pushbutton shall have an operating voltage range of 12 to 36 VDC.

The housing shall be yellow.

Housings that include an integral sign mount for the pedestrian pushbutton sign shall be capable of mounting a 9 in. by 12 in. or 9 in. by 15 in. sign (width by height).

M10.09.2: APS Pushbutton Assembly

An APS Pushbutton Assembly shall meet all of the requirements of M10.09.1: Pedestrian Pushbutton Assembly, and the following.

The pushbutton shall have a vibrotactile arrow. The arrow shall have high visual contrast (light on dark or dark on light).

APS Pushbutton Assembly shall be capable of the following:

- Emitting a locator tone.
- Providing two types of audible walk indications: an audible tone in multiple frequencies and a speech message. The type of audible walk indication will be programmed by Contractor per the Plans.
- Emitting sound via one or more speakers that automatically adjust to ambient noise and shall also be capable of being capped at a preprogrammed level.
- Providing three functions as a result of an extended pushbutton press: increased crossing time, audible beaconing, and speech pushbutton information. The function of the extended pushbutton press will be programmed by the Contractor per the Plans.

APS Pushbutton Assembly shall include a latching red LED pilot light.

Subsection M10.18.: Connected Work Zone Notification System Devices
Add this new subsection.

M10.18.0: Connected Work Zone Notification System Devices

Connected Work Zone Notification System (CWZNS) devices shall include the following:

- An internal 4G LTE or 5G cellular modem. The modem shall be compatible with SIM cards from multiple cellular carriers, or the device shall be capable of using a cellular modem from more than one cellular carrier.
- An integrated GPS that will allow for automated telemetry without additional configuration.
- A self-contained power source that can be recharged without manual intervention. The power source shall enable uninterrupted operation of the CWZNS field device.
- Mounting and supporting hardware and wiring necessary to complete a working system.

CWZNS devices shall be capable of operating in temperatures ranging from -40°F to +122°F with no degradation in operation due to rain, fog, snow, ice, darkness, dust, or road debris.

CWZNS devices shall be physically and digitally secured to prevent unauthorized access.

When powered on, real-time data from CWZNS devices shall be provided in a USDOT Work Zone Data Exchange (WZDx) Specification Device Feed version 4.2. The Device Feed shall then be able to be consumed by the MassDOT Work Zone Manager (WZM) application. The Device Feed shall meet the following requirements:

- Each manufacturer of CWZNS field devices and Smart Work Zone (SWZ) field devices shall provide a single statewide Device Feed (a single URL) that consists of that manufacturer's field devices that are used by or under the direction of the Department.
- The Device Feed shall be made available via an HTTP GET request. The response shall be the WZDx Device Feed JSON object without a wrapper or paging.
- The Device Feed shall be public or use "Basic" HTTP Authentication.
- The Device Feed shall be provided over HTTPS.
- The Device Feed shall reflect changes in CWZNS field device status (e.g., display changed or device moved) no later than 60 seconds after they occur.
- For each CWZNS field device, the "update date" property shall be no older than 60 minutes, except when it has stopped communicating or is otherwise in error.
- The "id" property of each CWZNS field device feature in the Device Feed shall stay the same for the duration of the Contract and shall be a Universally Unique IDentifier (UUID) to guarantee uniqueness between feeds and over time.

M10.18.1: Location Marker

Location Markers shall meet the requirements of M10.18.0: Connected Work Zone Notification System Devices.

Location Markers may be standalone devices or an attachment to a channelizing device. Either type shall be certified to comply with the relevant minimum TL-3 testing requirements of the *Manual on Assessing Safety Hardware*.

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END OF SUPPLEMENTAL SPECIFICATIONS

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CONTRACT PROVISIONS FOR
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Davis-Bacon and Related Act Provisions
IV. Contract Work Hours and Safety Standards Act Provisions
V. Subletting or Assigning the Contract
VI. Safety: Accident Prevention
VII. False Statements Concerning Highway Projects
VIII. Implementation of Clean Air Act and Federal Water Pollution Control Act
IX. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
X. Certification Regarding Use of Contract Funds for Lobbying
XI. Use of United States-Flag Vessels

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only).

I. GENERAL

1. Historically, contracting agencies using Federal-aid highway funds were required to ensure Form FHWA-1273 was physically incorporated into all contracts and subcontracts. Effective June 10, 2026, this requirement was eliminated [91 FR 25492]. Future use of Form FHWA-1273 is now optional on the part of the contracting agency using Federal-aid highway funds. FHWA continues to make Form FHWA-1273 available as a convenience to contracting agencies. Contracting agencies must continue to ensure compliance with the provisions cited in Form FHWA-1273 in accordance with the provisions regardless of the use of Form FHWA-1273. Accordingly, the contracting agency retains the authority to determine whether the contractor must use Form FHWA-1273 to physically incorporate required contract provisions in each subcontract and in lower tier contracts. Where permitted by the contracting agency, the contractor may choose other ways to include required contract provisions in each subcontract, besides incorporating Form FHWA-1273. Contract provisions in Form FHWA-1273 are not required to be physically included in subcontracts for design services on Federal-aid design-build contracts, or in purchase orders, rental agreements and other agreements for supplies or services.

The applicable provisions of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor or design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION

The contractor and all subcontractors must comply with the following policies: 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract.

1.Assurances Required:

a. The requirements of 49 CFR Part 26, including any amendments thereto, and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26, including any amendments thereto, in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E, including any amendments thereto, are incorporated by reference. 49 CFR Part 21.

III. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the

classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph 2.a. of this section or Section IV, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number

of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with 29 CFR part 30, including any amendments thereto.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section III. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the

contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

IV. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $33 as of January 15, 2025 (See 90 FR 1859) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section III paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

V. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1. of this section refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph 1. of this section is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however,

contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VI. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

VIII. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

IX. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

X. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XI. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (40 U.S.C. sections 14501(d) and 14701 and the Appalachian Regional Commission Code as authorized under 40 U.S.C. section 14302)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 40 U.S.C. 14501 allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

DOCUMENT 00811

SPECIAL PROVISIONS
MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES
Revised: 02/03/2023

This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

Price Adjustments will be based on the variance in price, for the liquid asphalt component only, between the Base Price and the Period Price. They shall not include transportation or other charges. Price Adjustments will occur on a monthly basis.

Base Price
The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined by the Department at the time of the bid using the same method as the determination of the Period Price detailed below. The Base Price shall be used in all bids.

Period Price
The Period Price is the price of liquid asphalt for each monthly period as determined by the Department using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. The Department will post this Period Price on its website at https://www.mass.gov/service-details/massdot-current-contract-price-adjustments following its receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted the Department the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor.

Price Adjustment Determination, Calculation and Payment
The Contract Price of the HMA mixture will be paid under the respective item in the Contract. Price Adjustments, as herein provided, either upwards or downwards, will be made after the work has been performed using the monthly period price for the month during which the work was performed.

Price Adjustments will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the approved Job Mix Formula.

Price Adjustments will be separate payment items. The pay item numbers are 999.401 for a positive price adjustment (a payment) and 999.402 for a negative price adjustment (a deduction). Price Adjustments will be calculated using the following equation:

Price Adjustment = Tons of HMA Placed X Liquid Asphalt Content % X RAP Factor X (Period Price - Base Price)

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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DOCUMENT 00812

SPECIAL PROVISIONS
MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE –
ENGLISH UNITS
Revised: 02/01/2021

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Commonwealth, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department's web site https://www.mass.gov/service-details/massdot-current-contract-price-adjustments for the month in which the contract was bid, which includes State Tax.

The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.

This adjustment will be effected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No adjustment will be paid for work done beyond the extended completion date of any contract.

Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

ITEMS COVERED	FUEL FACTORS	
	Diesel	Gasoline
Excavation: and Borrow Work: Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144, 150, 150.1, 151 and 151.1 (Both Factors used)	0.29 Gallons / CY.	0.15 Gallons / CY
Surfacing Work: All Items containing Hot Mix Asphalt	2.90 Gallons / Ton	Does Not Apply

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DOCUMENT 00813

SPECIAL PROVISIONS

PRICE ADJUSTMENTS FOR STRUCTURAL STEEL AND REINFORCING STEEL

August 19, 2026

This special provision applies to all projects containing the use of structural steel and/or reinforcing steel as specified elsewhere in the Contract work. It applies to all structural steel and all reinforcing steel, as defined below, on the project. Compliance with this provision is mandatory, i.e., there are no "opt-in" or "opt-out" clauses. Price adjustments will be handled as described below and shall only apply to unfabricated reinforcing steel bars and unfabricated structural steel material, consisting of rolled shapes, plate steel, sheet piling, pipe piles, steel castings and steel forgings.

Price adjustments will be variances between Base Prices and Period Prices. Base Prices and Period Prices are defined below.

Price adjustments will only be made if the variances between Base Prices and Period Prices are 5% or more. A variance can result in the Period Price being either higher or lower than the Base Price. Once the 5% threshold has been achieved, the adjustment will apply to the full variance between the Base Price and the Period Price.

Price adjustments will be calculated by multiplying the number of pounds of unfabricated structural steel material or unfabricated reinforcing steel bars on a project by the index factor calculated as shown below under Example of a Period Price Calculation.

Price adjustments will ***not*** include guardrail panels or the costs of shop drawing preparation, handling, fabrication, coatings, transportation, storage, installation, profit, overhead, fuel costs, fuel surcharges, or other such charges not related to the cost of the unfabricated structural steel and unfabricated reinforcing steel.

The weight of steel subject to a price adjustment shall not exceed the final shipping weight of the fabricated part by more than 10%.

Base Prices and Period Prices are defined as follows:

Base Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are fixed prices determined by the Department and found in the table below. While it is the intention of the Department to make this table comprehensive, some of a project's unfabricated structural steel and/or unfabricated reinforcing steel may be inadvertently omitted. Should this occur, the Contractor shall bring the omission to the Department's attention so that a contract alteration may be processed that adds the missing steel to the table and its price adjustments to the Contract.

The Base Price Date is the month and year of the most recent finalized period price index at the time that MassDOT opened bids for the project. The Base Price Index for this contract is the Steel PPI listed in the Notice to Contractors.

Period Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are variable prices that have been calculated using the Period Price Date and an index of steel prices to adjust the Base Price.

The Period Price Date is the date the steel was delivered to the fabricator as evidenced by an official bill of lading submitted to the Department containing a description of the shipped materials, weights of the shipped materials and the date of shipment. This date is used to select the Period Price Index.

The index used for the calculation of Period Prices is the U.S. Department of Labor Bureau of Labor Statistics Producer Price Index (PPI) Series ID WPU101702 (Not Seasonally Adjusted, Group: Metals and Metal Products, Item: Semi-finished Steel Mill Products.) As this index is subject to revision for a period of up to four (4) months after its original publication, no price adjustments will be made until the index for the period is finalized, i.e., the index is no longer suffixed with a "(P)".

Period Prices are determined as follows:

Period Price = Base Price X Index Factor
Index Factor = Period Price Index / Base Price Index

Example of a Period Price Calculation:

Calculate the Period Price for December 2009 using a Base Price from March 2009 of $0.82/Pound for 1,000 Pounds of ASTM A709 (AASHTO M270) Grade A36 Structural Steel Plate.

The Period Price Date is December 2009. From the PPI website*, the Period Price Index = 218.0.

The Base Price Date is March 2009. From the PPI website*, the Base Price Index = 229.4.

Index Factor = Period Price Index / Base Price Index = 218.0 / 229.4 = 0.950
Period Price = Base Price X Index Factor = $0.82/Pound X 0.950 = $0.78/Pound

Since $0.82 - $0.78 = $0.04 is less than 5% of $0.82, no price adjustment is required.

If the $0.04 difference shown above was greater than 5% of the Base Price, then the price adjustment would be 1,000 Pounds X $0.04/Pound = $40.00. Since the Period Price of $0.78/Pound is less than the Base Price of $0.82/Pound, indicating a drop in the price of steel between the bid and the delivery of material, a credit of $40.00 would be owed to MassDOT. When the Period Price is higher than the Base Price, the price adjustment is owed to the Contractor.

* To access the PPI website and obtain a Base Price Index or a Period Price Index, go to http://data.bls.gov/cgi-bin/srgate

End of example.

The Contractor will be paid for unfabricated structural steel and unfabricated reinforcing steel under the respective contract pay items for all components constructed of either structural steel or reinforced Portland cement concrete under their respective Contract Pay Items.

Price adjustments, as herein provided for, will be paid separately as follows:

Structural Steel
Pay Item Number 999.449 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.457 for negative (-) pay adjustments (credits to MassDOT Highway Division)

Reinforcing Steel
Pay Item Number 999.466 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.467 for negative (-) pay adjustments (credits to MassDOT Highway Division)

No price adjustment will be made for price changes after the Contract Completion Date, unless the MassDOT Highway Division has approved an extension of Contract Time for the Contract.

TABLE

Steel Type		Price per Pound
1	ASTM A615/A615M Grade 60 (AASHTO M31 Grade 60 or 420) Reinforcing Steel	$0.58
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	$0.81
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	$0.81
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	$0.84
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	$0.88
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	$0.83
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	$0.88
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	$0.83
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	$0.91
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	$0.84
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	$0.91
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	$0.84
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	$0.95
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	$1.03
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	$1.57
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	$0.91
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	$0.84
18	ASTM A276 Type 316 Stainless Steel	$4.71
19	ASTM A240 Type 316 Stainless Steel	$4.71
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	$1.62
21	ASTM A53 Grade B Structural Steel Pipe	$1.03
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	$1.03
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	$0.81
24	ASTM 252, Grade 2 Permanent Steel Casing	$0.81
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	$0.86
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	$1.54
27	ASTM A572 / A572M, Grade 50 Sheetpiling	$1.54
28	ASTM A36/36M, Grade 50	$0.88
29	ASTM A570, Grade 50	$0.86
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	$0.88
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	$1.03
32	AREA 140 LB Rail and Track Accessories	$0.53

NOTE: Steel Castings are generally used only on moveable bridges. Cast iron frames, grates and pipe are not “steel” castings and will not be considered for price adjustments.

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DOCUMENT 00814

SPECIAL PROVISIONS
PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES

January 12, 2009

This provision applies to all projects using greater than 100 Cubic Yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in the Notice to Contractors section of the Bid Documents. This Price Adjustment will occur on a monthly basis.

The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.

The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price (see below) and found in the Notice to Contractors.

The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the **Construction Economics** section of *ENR Engineering News-Record* magazine or at the ENR website http://www.enr.com under **Construction Economics**. The Period Price will be posted on the MassDOT website the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.

The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

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DOCUMENT 00820

THE COMMONWEALTH OF MASSACHUSETTS SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY, NON-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

I. Definitions

For purposes of this contract,

"Minority" means a person who meets one or more of the following definitions:

(a) American Indian or Native American means: all persons having origins in any of the original peoples of North America and who are recognized as an Indian by a tribe or tribal organization.
(b) Asian means: All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian sub-continent, or the Pacific Islands, including, but Not limited to China, Japan, Korea, Samoa, India, and the Philippine Islands.
(c) Black means: All persons having origins in any of the Black racial groups of Africa, including, but not limited to, African-Americans, and all persons having origins in any of the original peoples of the Cape Verdean Islands.
(d) Eskimo or Aleut means: All persons having origins in any of the peoples of Northern Canada, Greenland, Alaska, and Eastern Siberia.
(e) Hispanic means: All persons having their origins in any of the Spanish-speaking peoples of Mexico, Puerto Rico, Cuba, Central or South America, or the Caribbean Islands.

"State construction contract" means a contract for the construction, reconstruction, installation, demolition, maintenance or repair of a building or capital facility, or a contract for the construction, reconstruction, alteration, remodeling or repair of a public work undertaken by a department, agency, board, or commission of the commonwealth.

"State assisted construction contract" means a contract for the construction, reconstruction, installation, demolition, maintenance or repair of a building or capital facility undertaken by a political subdivision of the commonwealth, or two or more political subdivisions thereof, an authority, or other instrumentality and whose costs of the contract are paid for, reimbursed, grant funded, or otherwise supported, in whole or in part, by the commonwealth.

II. Equal Opportunity, Non-Discrimination and Affirmative Action

During the performance of this Contract, the Contractor and all subcontractors (hereinafter collectively referred to as "the Contractor") for a state construction contract or a state assisted construction contract, for him/herself, his/her assignees and successors in interest, agree to comply with all applicable equal employment opportunity, non-discrimination and affirmative action requirements, including but not limited to the following:

In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability, shall not discriminate in the selection or retention of subcontractors, and shall not discriminate in the procurement of materials and rentals of equipment.

The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion, or transfer; recruitment advertising, layoff or termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship or on-the-job training opportunity. The Contractor shall comply with the provisions of chapter 151B of the Massachusetts General Laws, as amended, and all other applicable anti-discrimination and equal opportunity laws, all of which are herein incorporated by reference and made a part of this Contract.

The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Massachusetts Commission Against Discrimination setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (Massachusetts General Laws Chapter l51 B).

In connection with the performance of work under this contract, the Contractor shall undertake, in good faith, affirmative action measures to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability. Such affirmative action measures shall entail positive and aggressive measures to ensure nondiscrimination and to promote equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, apprenticeship and on-the-job training programs. A list of positive and aggressive measures shall include, but not be limited to, advertising employment opportunities in minority and other community news media; notifying minority, women and other community-based organizations of employment opportunities; validating all job specifications, selection requirements, and tests; maintaining a file of names and addresses of each worker referred to the Contractor and what action was taken concerning such worker; and notifying the administering agency in writing when a union with whom the Contractor has a collective bargaining agreement has failed to refer a minority or woman worker. These and other affirmative action measures shall include all actions required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, sex, sexual orientation, genetic information, military service, age, ancestry or disability. One purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future Commonwealth public construction projects.

III. Minority and Women Workforce Participation

Pursuant to his/her obligations under the preceding section, the Contractor shall strive to achieve on this project the labor participation goals contained herein. Said participation goals shall apply in each job category on this project including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers and those classes of work enumerated in Section 44F of Chapter 149 of the Massachusetts General Laws. The participation goals for this project shall be 15.3% for minorities and 6.9% for women. The participation goals, as set forth herein, shall not be construed as quotas or set-asides; rather, such participation goals will be used to measure the progress of the Commonwealth's equal opportunity, non-discrimination and affirmative action program. Additionally, the participation goals contained herein should not be seen or treated as a floor or as a ceiling for the employment of particular individuals or group of individuals.

IV. Liaison Committee

At the discretion of the agency that administers the contract for the construction project there may be established for the life of the contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administering the contract for the construction project, hereinafter called the administering agency, a representative from the Office of Affirmative action, and such other representatives as may be designated by the administering agency. The Contractor (or his/her agent, if any, designated by him/her as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

V. Reports and Records

The Contractor shall prepare projected workforce tables on a quarterly basis when required by the administering agency. These shall be broken down into projections, by week, of workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and also, when updated, to the administering agency and the Liaison Committee when required.

The Contractor shall prepare weekly reports in a form approved by the administering agency, unless information required is required to be reported electronically by the administering agency, the number of hours worked in each trade by each employee, identified as woman, minority, or non-minority. Copies of these shall be provided at the end of each such week to the administering agency and the Liaison Committee.

Records of employment referral orders, prepared by the Contractor, shall be made available to the administering agency on request.

The Contractor will provide all information and reports required by the administering agency on instructions issued by the administering agency and will permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the administering agency to effect the employment of personnel. This provision shall apply only to information pertinent to the Commonwealth's supplementary non-discrimination, equal opportunity and access and opportunity contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering agency and shall set forth what efforts he has made to obtain the information.

VI. Access to Work Site

A designee of the administering agency and a designee of the Liaison Committee shall each have a right to access the work site.

VII. Solicitations for Subcontracts, and for the Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this contract relative to non-discrimination and equal opportunity.

VIII. Sanctions

Whenever the administering agency believes the General or Prime Contractor or any subcontractor may not be operating in compliance with the provisions of the Fair Employment Practices Law of the Commonwealth (Massachusetts General Laws Chapter 151B), the administering agency may refer the matter to the Massachusetts Commission Against Discrimination ("Commission") for investigation.

Following the referral of a matter by the administering agency to the Massachusetts Commission Against Discrimination, and while the matter is pending before the MCAD, the administering agency may withhold payments from contractors and subcontractors when it has documentation that the contractor or subcontractor has violated the Fair Employment Practices Law with respect to its activities on the Project, or if the administering agency determines that the contractor has materially failed to comply with its obligations and the requirements of this Section. The amount withheld shall not exceed a withhold of payment to the General or Prime Contractor of 1/100 or 1% of the contract award price or $5,000, whichever sum is greater, or, if a subcontractor is in non-compliance, a withhold by the administering agency from the General Contractor, to be assessed by the General Contractor as a charge against the subcontractor, of 1/100 or 1% of the subcontractor price, or $1,000 whichever sum is greater, for each violation of the applicable law or contract requirements. The total withheld from anyone General or Prime Contractor or subcontractor on a Project shall not exceed $20,000 overall. No withhold of payments or investigation by the Commission or its agent shall be initiated without the administering agency providing prior notice to the Contractor.

If, after investigation, the Massachusetts Commission Against Discrimination finds that a General or Prime Contractor or subcontractor, in commission of a state construction contract or state-assisted construction contract, violated the provisions of the Fair Employment Practices Law, the administering agency may convert the amount withheld as set forth above into a permanent sanction, as a permanent deduct from payments to the General or Prime Contractor or subcontractor, which sanction will be in addition to any such sanctions, fines or penalties imposed by the Massachusetts Commission Against Discrimination.

No sanction enumerated under this Section shall be imposed by the administering agency except after notice to the General or Prime Contractor or subcontractor and an adjudicatory proceeding, as that term is used, under Massachusetts General Laws Chapter 30A, has been conducted.

IX. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

X. Contractor's Certification

After award and prior to the execution of any contract for a state construction contract or a state assisted construction contract, the Prime or General Contractor shall certify that it will comply with all provisions of this Document 00820 Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program, by executing Document 00859 Contractor/Subcontractor Certification Form.

XI. Subcontractor Requirements

Prior to the award of any subcontract for a state construction contract or a state assisted construction contract, the Prime or General Contractor shall provide all prospective subcontractors with a complete copy of this Document 00820 entitled "Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program" and will incorporate the provisions of this Document 00820 into any and all contracts or work orders for all subcontractors providing work on the Project. In order to ensure that the said subcontractor's certification becomes a part of all subcontracts under the prime contract, the Prime or General Contractor shall certify in writing to the administering agency that it has complied with the requirements as set forth in the preceeding paragraph by executing Document 00859 Contractor/Subcontractor Certification Form.

Rev'd 03/07/14

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DOCUMENT 00821

ELECTRONIC REPORTING REQUIREMENTS
CIVIL RIGHTS PROGRAMS AND CERTIFIED PAYROLL

Implemented on March 2, 2009 Revised June 04, 2019

The Massachusetts Department Of Transportation (MassDOT) has replaced the CHAMP reporting system with Equitable Business Opportunity Solution (EBO), a new web-based civil rights reporting software system. This system is capable of handling both civil rights reporting requirements and certified payrolls. The program's functions include the administration of Equal Employment Opportunity (EEO) requirements, On-The-Job Training requirements (OJT), Disadvantage Business Enterprise (DBE) and/or Minority / Women's Business Enterprise (M/WBE) subcontracting requirements, and the electronic collection of certified payrolls associated with MassDOT projects. In addition, this system is used to generate various data required as part of the American Recovery and Reinvestment Act (ARRA). Contractors are responsible for all coordination with all sub-contractors to ensure timely and accurate electronic submission of all required data.

Contractor and Sub-Contractor EBO User Certification

All contractors and sub-contractors must use the EBO software system. The software vendor, Internet Government Solutions (IGS), has developed an online EBO Training Module that is available to contractors and sub-contractors. This module is a self-tutorial which allows all users in the company to access the training, complete the tutorial, and become certified as EBO users for a one time fee of $75.00. This is the only cost to contractors and sub-contractors associated with the EBO software system. The online EBO Training Module can be accessed at www.ebotraining.com. Click the "Register My Company" button on the login page to begin your training registration. Questions regarding EBO online training should be directed to Gerry Anguilano, IGS at (440) 238-1684.

MassDOT will track contractors and sub-contractors who have successfully completed the on-line training module. All persons performing civil rights program and/or certified payroll functions should be EBO certified.

Vetting of Firms and Designated Firm Individuals

Contractors must authorize a Primary Log-In ID Holder who has completed EBO on-line training to have access to the EBO system by completing and submitting the "Request For EBO System Log-In/Password Form" located on the MassDOT website at: https://www.mass.gov/how-to/how-to-get-an-ebo-login
Contractors must also agree to comply with the EBO system user agreement located on the MassDOT website.

All subcontracts entered into on a project must include language that identifies the submission and training requirements that the sub-contractor must perform. Sub-contractors will be approved by the respective District Office of MassDOT through the existing approval process. When new sub-contractors, who have not previously worked for MassDOT, are initially selected by a general contractor, the new sub-contractor must be approved by the District before taking the EBO on-line training module.

Interim Reporting Requirements

Until MassDOT is satisfied that the EBO system is fully operational and functioning as designed, contractors and sub-contractors will be required to submit certified payrolls manually. There will be a transition period where dual reporting, through manual and electronic submission, will be required. MassDOT, however, will notify contractors and sub-contractors when they may cease manual submission of certified payrolls.

*** END OF DOCUMENT ***

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DOCUMENT 00859

CONTRACTOR/SUBCONTRACTOR CERTIFICATION FORM ‡

The contractor shall submit this completed document 00859 to MassDOT for each subcontract.

_____ **(Contractor)** **Date:**_____

_____ **(Subcontractor)**

☐ District Approved Subcontractor

Contract No: 136482 **Project No.** 613636 **Federal Aid No.:** HPP/STP(BR-OFF)-003S(903)X

Location: DIGHTON

Project Description: Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove

PART 1 CONTRACTOR CERTIFICATION: I hereby certify, as an authorized official of this company, that to the best of my knowledge, information and belief, the company is in compliance with all applicable federal and state laws, rules, and regulations governing fair labor and employment practices, that the company will not discriminate in their employment practices, that the company will make good faith efforts to comply with the minority employee and women employee workforce participation ratio goals and specific affirmative action steps contained in Contract Document 00820 The Commonwealth of Massachusetts Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program, and that the company will comply with the special provisions and documentation indicated below (as checked).

I further hereby certify, as an authorized official of this company, that the special provisions and documentation indicated below (as checked) have been or are included in, and made part of, the Subcontractor Agreement entered into with the firm named above.

☐ **This is not a Federally-aided construction project**

Document #

☐ 00718 –Participation By Minority Or Women's Business Enterprises and SDVOBE†
☐ 00761 –Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion
☐ 00820 – MA Supplemental Equal Employment Opportunity, Non-Discrimination, and Affirmative Action Program
☐ 00821 – Electronic Reporting Requirements, Civil Rights Programs, and Certified Payroll
☐ 00859 – Contractor/Subcontractor Certification Form (this document)
☐ 00860 – MA Employment Laws
☐ 00861 – Applicable State Wage Rates in the Contract Proposal**
☐ B00842 – MA Schedule of Participation By Minority or Women Business Enterprises (M/WBEs)†
☐ B00843 – MA Letter of Intent – M/WBEs†

** Does not apply to Material Suppliers, unless performing work on-site
† Applies only if Subcontractor is a M/WBE; only include these forms for the particular M/WBE Entity

☐ B00844 - Schedule of Participation By SDVOBE
☐ B00845 - Letter of Intent – SDVOBE
☐ B00846 – M/WBE or SDVOBE Joint Check Arrangement Approval Form
☐ B00847 – Joint Venture Affidavit

☐ **This is a Federally-aided construction project (Federal Aid Number is present)**

Document #

☐ 00719 – Special Provisions for Participation by Disadvantaged Business Enterprises†
☐ 00760 - Form FHWA 1273 - Required Contract Provisions for Federal-Aid Construction Contracts
☐ 00820 – MA Supplemental Equal Employment Opportunity, Non-Discrimination and Affirmative Action Program
☐ 00821 – Electronic Reporting Requirements, Civil Rights Programs and Certified Payroll
☐ 00859 – Contractor/Subcontractor Certification Form (this document)
☐ 00860 – MA Employment Laws
☐ 00870 – Standard Federal Equal Employment Opportunity Construction Contract Specifications Executive Order 11246, (41 CFR Parts 60-4.2 and 60-4.3 (Solicitations and Equal Opportunity Clauses)*
☐ 00875 – Federal Trainee Special Provisions

☐ B00853 – Schedule of Participation by Disadvantaged Business Enterprise†
☐ B00854 – Letter of Intent – DBEs†
☐ B00855 – DBE Joint Check Arrangement Approval Form
☐ B00856 – Joint Venture Affidavit
☐ 00861/00880 - Applicable state and federal wage rates from Contract Proposal**

*Applicable only to Contracts or Subcontracts in excess of $10,000
**Does not apply to Material Suppliers, unless performing work on-site
† Applies only if Subcontractor is a DBE; only include these forms for the particular DBE Entity

Signed this _____ Day of _____, 20_____ Under The Pains And Penalties Of Perjury.

_____ _____
(Print Name and Title) (Authorized Signature)

PART 2

PART 2 SUBCONTRACTOR CERTIFICATION: I hereby certify, as an authorized official of this company, that the required documents in Part 1 above were physically incorporated in our Agreement/Subcontract with the Contractor and give assurance that this company will fully comply or make every good faith effort to comply with the same. I further certify that:

1. This company recognizes that if this is a Federal-Aid Project, then this Contract is covered by the equal employment opportunity laws administered and enforced by the United States Department of Labor ("USDOL"), Office of Federal Contract Compliance Programs ('OFCCP"). By signing below, we acknowledge that this company has certain reporting obligations to the OFCCP, as specified by 41 CFR Part 60-4.2.
2. This company further acknowledges that any contractor with fifty (50) or more employees on a Federal-aid Contract with a value of fifty-thousand ($50,000) dollars or more must annually file an EEO-1 Report (SF 100) to the EEOC, Joint Reporting Committee, on or before September 30th, each year, as specified by 41 CFR Part 60-1.7a.
3. For more information regarding the federal reporting requirements, please contact the USDOL, OFCCP Regional Office, at 1-646-264-3170 or EEO-1, Joint Reporting Committee at 1-866-286-6440.
4. This company ☐ has, ☐ has not, participated in a previous contract or subcontract subject to the Equal Opportunity clauses set forth in 41 CFR Part 60-4 and Executive Order 11246, and where required, has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance Programs or the EEO Commission all reports due under the applicable filing requirements.
5. This company is in full compliance with applicable Federal and Commonwealth of Massachusetts laws, rules, and regulations and is not currently debarred or disqualified from bidding on or participating in construction contracts in any jurisdiction of the United States. See : https://www.mass.gov/service-details/contractors-and-vendors-suspended-or-debarred-by-massdot
6. This company is properly registered and in good standing with the Office of the Secretary of the Commonwealth.

Signed this _____ Day of _____, 20_____, Under The Pains And Penalties Of Perjury.

Firm: _____
Address: _____
_____
_____
Telephone Number:_____
Federal I.D. Number:_____
Estimated Start Date:_____
Estimated Completion Date:_____
Estimated Dollar Amount:_____

_____
(Print Name and Title)

_____
(Authorized Signature)

_____
(Date)

Rev'd 09/02/22

*** END OF DOCUMENT ***

DOCUMENT 00860

COMMONWEALTH OF MASSACHUSETTS PUBLIC EMPLOYMENT LAWS

Revised February 20, 2019

The Contractor's attention is directed to Massachusetts General Laws, Chapter 149, Sections 26 through 27H, and 150A. This contract is considered to fall within the ambit of that law, which provides that in general, the Prevailing Rate or Total Rate must be paid to employees working on projects funded by the Commonwealth of Massachusetts or any political subdivision including Massachusetts Department of Transportation (MassDOT).

A Federal Aid project is also subject to the Federal Minimum Wage Rate law for construction. When comparing a state minimum wage rate, monitored by the Massachusetts Attorney General, versus federal minimum wage rate, monitored by the U.S. Department of Labor Wage and Hour Division, for a particular job classification the higher wage is at all times to be paid to the affected employee.

Every contractor or subcontractor engaged in this contract to which sections twenty-seven and twenty-seven A apply will keep a true and accurate record of all mechanics and apprentices, teamsters, chauffeurs and laborers employed thereon, showing the name, address and occupational classification of each such employee on this contract, and the hours worked by, and the wages paid to, each such employee, and shall furnish to the MassDOT's Resident Engineer, on a weekly basis, a copy of said record, in a form approved by MassDOT and in accordance with M.G.L. c. 149, § 27B, signed by the employer or his/her authorized agent under the penalties of perjury.

Each such contractor or subcontractor shall preserve its payroll records for a period of three years from the date of completion of the contract.

The Prevailing Wage Rate generally includes the following:

Minimum Hourly Wage + Employer Contributions to Benefit Plans = Prevailing Wage Rate or Total Rate

Any employer who does not make contributions to Benefit Plans must pay the total Prevailing Wage Rate directly to the employee.

Any deduction from the Prevailing Wage Rate or Total Rate for contributions to benefit plans can only be for a Health & Welfare, Pension, or Supplementary Unemployment plan meeting the requirements of the Employee Retirement Income Security Act (ERISA) of 1974. The maximum allowable deduction for these benefits from the prevailing wage rate cannot be greater than the amount allowed by Executive Office of Labor (EOL) for the specified benefits. Any additional expense of providing benefits to the employees is to be borne by the employer and cannot be deducted from the Minimum Hourly Wage. If the employer's benefit expense is less than that so provided by EOL the difference will be paid directly to the employee. The rate established must be paid to all employees who perform work on the project.

When an employer makes deductions from the Minimum Hourly Wage for an employee's contribution to social security, state taxes, federal taxes, and/or other contribution programs, allowed by law, the employer shall furnish each employee a suitable pay slip, check stub or envelope notifying the employee of the amount of the deductions.

No contractor or subcontractor contracting for any part of the contract week shall require or permit any laborer or mechanic to be employed on such work in excess of forty hours in any workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all hours worked in excess of forty hours in such workweek, whichever is the greater number of overtime hours.

Apprentice Rates are permitted only when there is an Apprentice Agreement registered with the Massachusetts Division of Apprentice Training in accordance with M.G.L. c. 23, § 11E-11L.

The Prevailing Wage Rates issued for each project shall be the rates paid for the entire project. The Prevailing Wage Rates must be posted on the job site at all times and be visible from a public way.

In addition, each such contractor and subcontractor shall furnish to the MassDOT's Resident Engineer, within fifteen days after completion of its portion of the work, a statement, executed by the contractor or subcontractor or by any authorized officer or employee of the contractor or subcontractor who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

Date: _____

I , _____do hereby state:
(Name of signatory party) (Title)

That I pay or supervise the payment of the persons employed by:

_____
(Contractor or Subcontractor)

on the _____
(MassDOT Project Location and Contract Number)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty-nine of the General Laws.

Signature _____

Title _____

The above-mentioned copies of payroll records and statements of compliance shall be available for inspection by any interested party filing a written request to the MassDOT's Resident Engineer for such inspection and copying.

Massachusetts General Laws c. 149, §27, requires annual updates to prevailing wage schedules for all public construction contracts lasting longer than one year. MassDOT will request the required updates and furnish them to the Contractor. The Contractor is required to pay no less than the wage rates indicated on the annual updated wage schedules.

MassDOT will request the updates no later that two week before the anniversary of the Notice to Proceed date of the contract to allow for adequate processing by the Department of Labor Standards (DLS). The effective date for the new rates will be the anniversary date of the contract (i.e. the notice to proceed date), regardless of the date of issuance on the schedule from DLS.

All bidders are cautioned that the aforementioned laws require that employers pay to covered employees no less than the applicable minimum wages. In addition, the same laws require that the applicable prevailing wages become incorporated as part of this contract. The prevailing minimum wage law establishes serious civil and criminal penalties for violations, including imprisonment and exclusion from future public contracts. Bidders are cautioned to carefully read the relevant sections of the Massachusetts General Laws.

*** END OF DOCUMENT ***

DOCUMENT 00861

STATE PREVAILING WAGE RATES

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS
Prevailing Wage Rates

MAURA HEALEY
Governor
KIM DRISCOLL
Lt. Governor

As determined by the Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 to 27H

LAUREN JONES
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Massachusetts Highway	**City/Town:**	DIGHTON
Wage Request No:	20260824163044	**Job Location:**	Pleasant Street over Muddy Cove
Description of Work:	DIGHTON Federal Aid Project No. HPP/STP(BR-OFF)-003S(903)X Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove		
Contract Number:	136482		

§§ 26-27D Construction Project

This Prevailing Wage Schedule establishes the minimum wage rates that employees on this public works construction project must be paid. The project's Wage Request Number is listed above and on all pages of this Schedule. This schedule applies **only** to this specific project.

Awarding Authority Responsibilities

- You must include this Prevailing Wage Schedule (PWS) or an appropriate reference to it in all advertisements and calls for bids.
- The PWS must be incorporated in its entirety into all contracts for this project (G.L. c. 149, § 27).
- The wage rates on this PWS will remain in effect for the duration of the project. **Exception:** You must request an updated schedule for any multi-year construction project no later than 2 weeks before the project's yearly anniversary date.
  - For CM AT RISK projects, the anniversary date is the earlier of the signing date of: (a) the GMP Amendment; or (b) the first amendment to permit procurement of construction services.
  - For all other construction projects, the anniversary date is the date the contract was signed by the Awarding Authority and the General Contractor.
- You must also request an updated PWS if you have not opened bids or selected a contractor within 90 days of the date of issuance on this PWS.
  - For CM AT RISK projects, the earlier of (a) the signing date of the GMP Amendment; or (b) the bid for the first construction scope of work must be within 90 days of the date of issuance on this Schedule.
- You must provide any updated PWS to all contractors working on the project, including general and sub-contractors.
- You must keep the contractors' weekly certified payroll records and Statements of Compliance on file for **3 years.**
- Awarding authorities have other prevailing wage responsibilities not listed above. Learn more at: **[Prevailing wage: for awarding authorities | Mass.gov]** and G.L. c. 149, §§ 26-27D.

Contractor Responsibilities

- You must pay all employees who perform construction work on this project at least the wage rate listed on this PWS. **Warning!** If you do not follow this requirement, you can face civil fines, criminal charges, or private lawsuits.
- You must post this PWS at the worksite where it can be easily seen. (G.L. c. 149, § 27)
- You must file weekly payroll reports and a Statement of Compliance with the awarding authority (**not** DLS). You can file payroll reports by mail or email and must keep them on file for 3 years. Each weekly payroll report must include each employees' name, address, occupational classification(s), hours worked, and wages paid. Find a sample report at: mass.gov/dols/pw.
- You cannot pay any employees at the apprentice rates listed on this PWS unless they are registered with the Massachusetts Division of Apprentice Standards (DAS). Qualifying apprentices must be paid at the applicable step rate and must carry their apprentice ID card during all work hours on the project. Apprentices **not** registered with DAS must be paid at the listed journeyworker's rate, even if they are registered with a different federal/state public agency or private entity. For every week in which apprentice rates are paid, a copy of each apprentice's apprentice ID card issued by DAS shall be attached to the certified payroll records.
- If you don't know what classification or rate applies to the work being performed, you must ask DLS; paying the wrong rate subjects you to enforcement.
- Please contact DLS if you have any questions about the Prevailing Wage Schedule: (617) 626-6953 or **DLS.Feedback@mass.gov**

Employees who are **not** paid the wage listed on the Prevailing Wage Schedule (PWS) may file a complaint with the Attorney General's Fair Labor Division: **www.mass.gov/ago/fld**; **(617) 727-3465.**

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2026	$41.95	$16.17	$21.78	$0.00	$0.00	$79.90
	12/1/2026	$41.95	$16.17	$23.52	$0.00	$0.00	$81.64
	1/1/2027	$41.95	$16.77	$23.52	$0.00	$0.00	$82.24
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2026	$42.02	$16.17	$21.78	$0.00	$0.00	$79.97
	12/1/2026	$42.02	$16.17	$23.52	$0.00	$0.00	$81.71
	1/1/2027	$42.02	$16.77	$23.52	$0.00	$0.00	$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2026	$42.14	$16.17	$21.78	$0.00	$0.00	$80.09
	12/1/2026	$42.14	$16.17	$23.52	$0.00	$0.00	$81.83
	1/1/2027	$42.14	$16.77	$23.52	$0.00	$0.00	$82.43
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 2 For apprentice rates see "Apprentice- LABORER"	6/1/2026	$42.41	$10.90	$9.75	$9.11	$0.00	$72.17
	12/1/2026	$43.85	$10.90	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.30	$10.90	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$46.75	$10.90	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.25	$10.90	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$49.75	$10.90	$9.75	$9.11	$0.00	$79.51
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	6/1/2026	$42.41	$10.90	$9.75	$9.21	$0.00	$72.27
	12/1/2026	$43.85	$10.90	$9.75	$9.21	$0.00	$73.71
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SOUTHERN MASS)	12/1/2025	$44.80	$14.50	$4.30	$6.75	$0.00	$70.35
ASPHALT RAKER LABORERS LABORERS - ZONE 2 For apprentice rates see "Apprentice- LABORER"	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
ASPHALT RAKER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY) For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"	6/1/2026	$41.91	$10.90	$9.75	$9.21	$0.00	$71.77
	12/1/2026	$43.35	$10.90	$9.75	$9.21	$0.00	$73.21
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4 For apprentice rates see "Apprentice- OPERATING ENGINEERS"	6/1/2026	$59.38	$17.05	$13.35	$3.25	$0.00	$93.03
	12/1/2026	$60.83	$17.05	$13.35	$3.25	$0.00	$94.48

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BACKHOE/FRONT-END LOADER	6/1/2026	$59.38	$17.05	$13.35	$3.25	$0.00	$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.83	$17.05	$13.35	$3.25	$0.00	$94.48
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
LABORERS - ZONE 2	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER	6/1/2026	$42.41	$10.90	$9.75	$9.11	$0.00	$72.17
LABORERS	12/1/2026	$43.85	$10.90	$9.75	$9.11	$0.00	$73.61
LABORERS - ZONE 2	6/1/2027	$45.30	$10.90	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$46.75	$10.90	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.25	$10.90	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$49.75	$10.90	$9.75	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	6/1/2026	$42.41	$10.90	$9.75	$9.21	$0.00	$72.27
LABORERS	12/1/2026	$43.85	$10.90	$9.75	$9.21	$0.00	$73.71
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
BOILER MAKER	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79
BOILERMAKERS LOCAL 29							
BOILERMAKERS LOCAL 29							

Apprentice: BOILER MAKER

Effective Date: 1/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
2	65.00	$31.28	$7.07	$9.32	$3.90	$0.00	$51.57
3	70.00	$33.68	$7.07	$10.03	$4.20	$0.00	$54.98
4	75.00	$36.09	$7.07	$10.74	$4.50	$0.00	$58.40
5	80.00	$38.50	$7.07	$11.45	$4.80	$0.00	$61.82
6	85.00	$40.90	$7.07	$12.18	$5.10	$0.00	$65.25
7	90.00	$43.31	$7.07	$12.88	$5.40	$0.00	$68.66
8	95.00	$45.71	$7.07	$13.62	$5.70	$0.00	$72.10

Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	8/1/2026	$68.01	$12.84	$15.57	$7.33	$0.00	$103.75
	2/1/2027	$69.41	$12.84	$15.57	$7.33	$0.00	$105.15
BRICKLAYERS LOCAL 3							
BRICKLAYERS LOCAL 3 (FOXBORO)							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.01	$12.84	$15.57	$7.33	$0.00	$69.75
2	60.00	$40.81	$12.84	$15.57	$7.33	$0.00	$76.55
3	70.00	$47.61	$12.84	$15.57	$7.33	$0.00	$83.35
4	80.00	$54.41	$12.84	$15.57	$7.33	$0.00	$90.15
5	90.00	$61.21	$12.84	$15.57	$7.33	$0.00	$96.95

Apprentice: BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)

Effective Date: 2/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.71	$12.84	$15.57	$7.33	$0.00	$70.45
2	60.00	$41.65	$12.84	$15.57	$7.33	$0.00	$77.39
3	70.00	$48.59	$12.84	$15.57	$7.33	$0.00	$84.33
4	80.00	$55.53	$12.84	$15.57	$7.33	$0.00	$91.27
5	90.00	$62.47	$12.84	$15.57	$7.33	$0.00	$98.21

Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.40	$10.90	$9.75	$9.80	$0.00	$80.85
	12/1/2026	$51.90	$10.90	$9.75	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2026	$49.25	$10.90	$9.75	$9.80	$0.00	$79.70
	12/1/2026	$50.75	$10.90	$9.75	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN LABORERS LABORERS - FOUNDATION AND MARINE	6/1/2026	$49.58	$10.90	$9.75	$9.80	$0.00	$80.03
	12/1/2026	$51.08	$10.90	$9.75	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR LABORERS LABORERS - ZONE 2	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CARPENTER CARPENTERS CARPENTERS -ZONE 2 (Eastern Massachusetts)	3/1/2026	$50.85	$11.08	$11.47	$8.50	$0.00	$81.90
	9/1/2026	$52.10	$11.08	$11.47	$8.50	$0.00	$83.15
	3/1/2027	$53.35	$11.08	$11.47	$8.50	$0.00	$84.40

Apprentice: CARPENTER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.88	$11.08	$0.00	$1.73	$0.00	$35.69
2	45.00	$22.88	$11.08	$0.00	$1.73	$0.00	$35.69
3	55.00	$27.97	$11.08	$0.00	$3.40	$0.00	$42.45
4	55.00	$27.97	$11.08	$0.00	$3.40	$0.00	$42.45
5	70.00	$35.60	$11.08	$11.41	$5.10	$0.00	$63.19
6	70.00	$35.60	$11.08	$11.41	$5.10	$0.00	$63.19
7	80.00	$40.68	$11.08	$11.44	$6.80	$0.00	$70.00
8	80.00	$40.68	$11.08	$11.44	$6.80	$0.00	$70.00

Apprentice: CARPENTER

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$23.45	$11.08	$0.00	$1.73	$0.00	$36.26
2	45.00	$23.45	$11.08	$0.00	$1.73	$0.00	$36.26
3	55.00	$28.66	$11.08	$0.00	$3.40	$0.00	$43.14
4	55.00	$28.66	$11.08	$0.00	$3.40	$0.00	$43.14
5	70.00	$36.47	$11.08	$11.41	$5.10	$0.00	$64.06
6	70.00	$36.47	$11.08	$11.41	$5.10	$0.00	$64.06
7	80.00	$41.68	$11.08	$11.44	$6.80	$0.00	$71.00
8	80.00	$41.68	$11.08	$11.44	$6.80	$0.00	$71.00

Apprentice to Journeyworker Ratio: 1:5

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CARPENTER WOOD FRAME CARPENTERS CARPENTERS-ZONE 3 (Wood Frame) All Aspects of New Wood Frame Work	10/1/2025	$27.37	$7.38	$4.47	$1.00	$0.00	$40.22
	10/1/2026	$28.47	$7.38	$4.47	$1.00	$0.00	$41.32

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.42	$7.38	$0.00	$0.00	$0.00	$23.80
2	60.00	$16.42	$7.38	$0.00	$0.00	$0.00	$23.80
3	65.00	$17.79	$7.38	$0.00	$1.00	$0.00	$26.17
4	70.00	$19.16	$7.38	$0.00	$1.00	$0.00	$27.54
5	75.00	$20.53	$7.38	$3.80	$1.00	$0.00	$32.71
6	80.00	$21.90	$7.38	$3.80	$1.00	$0.00	$34.08

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
7	85.00	$23.26	$7.38	$3.80	$1.00	$0.00	$35.44
8	90.00	$24.63	$7.38	$3.80	$1.00	$0.00	$36.81

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$17.08	$7.38	$0.00	$0.00	$0.00	$24.46
2	60.00	$17.08	$7.38	$0.00	$0.00	$0.00	$24.46
3	65.00	$18.51	$7.38	$0.00	$1.00	$0.00	$26.89
4	70.00	$19.93	$7.38	$0.00	$1.00	$0.00	$28.31
5	75.00	$21.35	$7.38	$3.80	$1.00	$0.00	$33.53
6	80.00	$22.78	$7.38	$3.80	$1.00	$0.00	$34.96
7	85.00	$24.20	$7.38	$3.80	$1.00	$0.00	$36.38
8	90.00	$25.62	$7.38	$3.80	$1.00	$0.00	$37.80

Apprentice to Journeyworker Ratio: 1:5

CEMENT MASONRY/PLASTERING	7/1/2026	$54.49	$13.35	$16.43	$7.78	$1.80	$93.85
PLASTERERS AND CEMENT MASONS LOCAL 534	1/1/2027	$55.94	$13.35	$16.43	$7.78	$1.80	$95.30
Plasterers and Cement Masons - Zone 1	7/1/2027	$57.29	$13.35	$16.43	$7.78	$1.80	$96.65
	1/1/2028	$58.64	$13.35	$16.43	$7.78	$1.80	$98.00

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.25	$13.35	$16.43	$0.00	$0.00	$57.03
2	60.00	$32.69	$13.35	$16.43	$7.78	$1.80	$72.05
3	65.00	$35.42	$13.35	$16.43	$7.78	$1.80	$74.78
4	70.00	$38.14	$13.35	$16.43	$7.78	$1.80	$77.50
5	75.00	$40.87	$13.35	$16.43	$7.78	$1.80	$80.23
6	80.00	$43.59	$13.35	$16.43	$7.78	$1.80	$82.95
7	90.00	$49.04	$13.35	$0.00	$7.78	$0.00	$70.17

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 1/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.97	$13.35	$16.43	$0.00	$0.00	$57.75
2	60.00	$33.56	$13.35	$16.43	$7.78	$1.80	$72.92

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: CEMENT MASONRY/PLASTERING							
Effective Date: 1/1/2027							
Step / Percent		**Apprentice Base Wage**					
3 / 65.00		$36.36	$13.35	$16.43	$7.78	$1.80	$75.72
4 / 70.00		$39.16	$13.35	$16.43	$7.78	$1.80	$78.52
5 / 75.00		$41.96	$13.35	$16.43	$7.78	$1.80	$81.32
6 / 80.00		$44.75	$13.35	$16.43	$7.78	$1.80	$84.11
7 / 90.00		$50.35	$0.00	$16.43	$0.00	$0.00	$66.78
Apprentice to Journeyworker Ratio: 1:5							
CHAIN SAW OPERATOR	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
LABORERS - ZONE 2	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	6/1/2026	$60.61	$17.05	$13.35	$3.25	$0.00	$94.26
OPERATING ENGINEERS LOCAL 4	12/1/2026	$62.09	$17.05	$13.35	$3.25	$0.00	$95.74
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
COMPRESSOR OPERATOR	6/1/2026	$37.63	$17.05	$13.35	$3.25	$0.00	$71.28
OPERATING ENGINEERS LOCAL 4	12/1/2026	$38.58	$17.05	$13.35	$3.25	$0.00	$72.23
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE)	1/1/2026	$59.56	$10.35	$12.00	$12.60	$0.00	$94.51
PAINTERS LOCAL 35							
PAINTERS LOCAL 35 - ZONE 2							
Apprentice: DELEADER (BRIDGE)							
Effective Date: 1/1/2026							
Step / Percent		**Apprentice Base Wage**					
1 / 50.00		$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2 / 55.00		$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3 / 60.00		$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4 / 65.00		$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5 / 70.00		$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6 / 75.00		$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7 / 80.00		$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8 / 90.00		$53.60	$10.35	$12.00	$11.34	$0.00	$87.29
Apprentice to Journeyworker Ratio: 1:1							
DEMO: ADZEMAN	6/1/2026	$49.30	$10.90	$9.75	$9.65	$0.00	$79.60

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS LABORERS - ZONE 2	12/7/2026	$50.80	$10.90	$9.75	$9.65	$0.00	$81.10
	6/7/2027	$52.40	$10.90	$9.75	$9.65	$0.00	$82.70
	12/6/2027	$54.00	$10.90	$9.75	$9.65	$0.00	$84.30
	6/5/2028	$55.68	$10.90	$9.75	$9.65	$0.00	$85.98
	12/4/2028	$57.35	$10.90	$9.75	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 2	6/1/2026	$50.30	$10.90	$9.75	$9.65	$0.00	$80.60
	12/7/2026	$51.80	$10.90	$9.75	$9.65	$0.00	$82.10
	6/7/2027	$53.40	$10.90	$9.75	$9.65	$0.00	$83.70
	12/6/2027	$55.00	$10.90	$9.75	$9.65	$0.00	$85.30
	6/5/2028	$56.68	$10.90	$9.75	$9.65	$0.00	$86.98
	12/4/2028	$58.35	$10.90	$9.75	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 2	6/1/2026	$50.05	$10.90	$9.75	$9.65	$0.00	$80.35
	12/7/2026	$51.55	$10.90	$9.75	$9.65	$0.00	$81.85
	6/7/2027	$53.15	$10.90	$9.75	$9.65	$0.00	$83.45
	12/6/2027	$54.75	$10.90	$9.75	$9.65	$0.00	$85.05
	6/5/2028	$56.43	$10.90	$9.75	$9.65	$0.00	$86.73
	12/4/2028	$58.10	$10.90	$9.75	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 2	6/1/2026	$50.30	$10.90	$9.75	$9.65	$0.00	$80.60
	12/7/2026	$51.80	$10.90	$9.75	$9.65	$0.00	$82.10
	6/7/2027	$53.40	$10.90	$9.75	$9.65	$0.00	$83.70
	12/6/2027	$55.00	$10.90	$9.75	$9.65	$0.00	$85.30
	6/5/2028	$56.68	$10.90	$9.75	$9.65	$0.00	$86.98
	12/4/2028	$58.35	$10.90	$9.75	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: JACKHAMMER OPERATOR LABORERS LABORERS - ZONE 2	6/1/2026	$50.05	$10.90	$9.75	$9.65	$0.00	$80.35
	12/7/2026	$51.55	$10.90	$9.75	$9.65	$0.00	$81.85
	6/7/2027	$53.15	$10.90	$9.75	$9.65	$0.00	$83.45
	12/6/2027	$54.75	$10.90	$9.75	$9.65	$0.00	$85.05
	6/5/2028	$56.43	$10.90	$9.75	$9.65	$0.00	$86.73
	12/4/2028	$58.10	$10.90	$9.75	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER LABORERS LABORERS - ZONE 2	6/1/2026	$49.30	$10.90	$9.75	$9.65	$0.00	$79.60
	12/7/2026	$50.80	$10.90	$9.75	$9.65	$0.00	$81.10
	6/7/2027	$52.40	$10.90	$9.75	$9.65	$0.00	$82.70
	12/6/2027	$54.00	$10.90	$9.75	$9.65	$0.00	$84.30
	6/5/2028	$55.68	$10.90	$9.75	$9.65	$0.00	$85.98
	12/4/2028	$57.35	$10.90	$9.75	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIRECTIONAL DRILL MACHINE OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	$78.11	$10.08	$11.62	$12.67	$0.00	$112.48
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Diver wage 70/80/90 2A $69.83, 3A $91.79,4A $102.14 Total Rate							
DIVER TENDER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	$51.97	$10.08	$11.62	$12.67	$0.00	$86.34
as of 8-1-24, Apprentices with diving licenses begin at second year. % of Piledriver wage 70/80/90 2A $54.20, 3A $73.93,4A $82.05 Total Rate							
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
ELECTRICIAN ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78

Apprentice: ELECTRICIAN

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.90	$12.25	$0.63	$0.00	$0.00	$33.78
2	45.00	$23.51	$12.25	$0.71	$0.00	$0.00	$36.47
3	50.00	$26.13	$12.25	$0.78	$0.00	$0.00	$39.16
4	55.00	$28.74	$12.25	$6.61	$2.50	$0.00	$50.10
5	60.00	$31.35	$12.25	$7.21	$2.50	$0.00	$53.31
6	65.00	$33.96	$12.25	$7.82	$2.50	$0.00	$56.53
7	70.00	$36.58	$12.25	$8.41	$2.50	$0.00	$59.74
8	75.00	$39.19	$12.25	$9.02	$2.50	$0.00	$62.96

Apprentice: ELECTRICIAN

Effective Date: 9/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.89	$12.50	$0.66	$0.00	$0.00	$35.05
2	45.00	$24.62	$12.50	$0.74	$0.00	$0.00	$37.86
3	50.00	$27.36	$12.50	$0.82	$0.00	$0.00	$40.68
4	55.00	$30.10	$12.50	$6.92	$2.75	$0.00	$52.27
5	60.00	$32.83	$12.50	$7.54	$2.75	$0.00	$55.62

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: ELECTRICIAN							
Effective Date: 9/1/2026							
Step / Percent / Apprentice Base Wage							
6 / 65.00		$35.57	$12.50	$8.18	$2.75	$0.00	$59.00
7 / 70.00		$38.30	$12.50	$8.81	$2.75	$0.00	$62.36
8 / 75.00		$41.04	$12.50	$9.43	$2.75	$0.00	$65.72
Apprentice to Journeyworker Ratio: 2:3							
ELEVATOR CONSTRUCTOR	1/1/2026	$77.26	$16.38	$11.06	$10.70	$0.00	$115.40
ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2027	$80.55	$16.48	$11.16	$11.00	$0.00	$119.19
ELEVATOR CONSTRUCTORS LOCAL 4							
Apprentice: ELEVATOR CONSTRUCTOR							
Effective Date: 1/1/2026							
Step / Percent / Apprentice Base Wage							
1 / 50.00		$38.63	$0.00	$0.00	$0.00	$0.00	$38.63
2 / 55.00		$42.49	$16.38	$11.06	$10.70	$0.00	$80.63
3 / 65.00		$50.22	$16.38	$11.06	$10.70	$0.00	$88.36
4 / 70.00		$54.08	$16.38	$11.06	$10.70	$0.00	$92.22
5 / 80.00		$61.81	$16.38	$11.06	$10.70	$0.00	$99.95
Apprentice: ELEVATOR CONSTRUCTOR							
Effective Date: 1/1/2027							
Step / Percent / Apprentice Base Wage							
1 / 50.00		$40.28	$0.00	$0.00	$0.00	$0.00	$40.28
2 / 55.00		$44.30	$16.48	$11.16	$11.00	$0.00	$82.94
3 / 65.00		$52.36	$16.48	$11.16	$11.00	$0.00	$91.00
4 / 70.00		$56.39	$16.48	$11.16	$11.00	$0.00	$95.03
5 / 80.00		$64.44	$16.48	$11.16	$11.00	$0.00	$103.08
Apprentice to Journeyworker Ratio: 1:1							
ELEVATOR CONSTRUCTOR HELPER	1/1/2026	$54.08	$16.38	$11.06	$10.07	$0.00	$91.59
ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2027	$56.39	$16.48	$11.16	$11.00	$0.00	$95.03
ELEVATOR CONSTRUCTORS LOCAL 4							
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	6/1/2026	$41.91	$10.90	$9.75	$9.21	$0.00	$71.77
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.21	$0.00	$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	5/1/2026	$54.40	$16.55	$13.35	$3.25	$0.00	$87.55
OPERATING ENGINEERS LOCAL 4	11/1/2026	$55.69	$16.55	$13.35	$3.25	$0.00	$88.84
OPERATING ENGINEERS LOCAL 4							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	5/1/2027	$57.12	$16.55	$13.35	$3.25	$0.00	$90.27
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	5/1/2026	$56.02	$16.55	$13.35	$3.25	$0.00	$89.17
OPERATING ENGINEERS LOCAL 4	11/1/2026	$57.32	$16.55	$13.35	$3.25	$0.00	$90.47
OPERATING ENGINEERS LOCAL 4	5/1/2027	$58.77	$16.55	$13.35	$3.25	$0.00	$91.92
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	5/1/2026	$26.28	$16.55	$13.35	$3.25	$0.00	$59.43
OPERATING ENGINEERS LOCAL 4	11/1/2026	$27.04	$16.55	$13.35	$3.25	$0.00	$60.19
OPERATING ENGINEERS LOCAL 4	5/1/2027	$27.89	$16.55	$13.35	$3.25	$0.00	$61.04
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIRE ALARM INSTALLER	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
ELECTRICIANS LOCAL 223	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78
ELECTRICIANS LOCAL 223							
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIRE ALARM REPAIR / MAINTENANCE	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
/ COMMISSIONING	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78
ELECTRICIANS LOCAL 223							
ELECTRICIANS LOCAL 223							
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN (ASST. ENGINEER)	6/1/2026	$47.55	$17.05	$13.35	$3.25	$0.00	$81.20
OPERATING ENGINEERS LOCAL 4	12/1/2026	$48.73	$17.05	$13.35	$3.25	$0.00	$82.38
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FLAGGER & SIGNALER (HEAVY & HIGHWAY)	6/1/2026	$29.21	$10.90	$9.75	$9.21	$0.00	$59.07
LABORERS	12/1/2026	$29.21	$10.90	$9.75	$9.21	$0.00	$59.07
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FLOORCOVERER	3/1/2026	$59.24	$10.33	$11.47	$8.80	$0.00	$89.84
FLOORCOVERERS LOCAL 2168	9/1/2026	$60.74	$10.33	$11.47	$8.80	$0.00	$91.34
FLOORCOVERERS LOCAL 2168 ZONE I	3/1/2027	$62.24	$10.33	$11.47	$8.80	$0.00	$92.84

Apprentice: FLOORCOVERER

Effective Date: 3/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$26.66	$10.33	$0.00	$1.76	$0.00	$38.75
2	45.00	$26.66	$10.33	$0.00	$1.76	$0.00	$38.75
3	55.00	$32.58	$10.33	$0.00	$3.52	$0.00	$46.43
4	55.00	$32.58	$10.33	$0.00	$3.52	$0.00	$46.43
5	70.00	$41.47	$10.33	$11.47	$5.28	$0.00	$68.55
6	70.00	$41.47	$10.33	$11.47	$5.28	$0.00	$68.55
7	80.00	$47.39	$10.33	$11.47	$7.04	$0.00	$76.23
8	80.00	$47.39	$10.33	$11.47	$7.04	$0.00	$76.23

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: FLOORCOVERER							
Effective Date: 9/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 45.00		$27.33	$10.33	$0.00	$1.76	$0.00	$39.42
2 / 45.00		$27.33	$10.33	$0.00	$1.76	$0.00	$39.42
3 / 55.00		$33.41	$10.33	$0.00	$3.52	$0.00	$47.26
4 / 55.00		$33.41	$10.33	$0.00	$3.52	$0.00	$47.26
5 / 70.00		$42.52	$10.33	$11.47	$5.28	$0.00	$69.60
6 / 70.00		$42.52	$10.33	$11.47	$5.28	$0.00	$69.60
7 / 80.00		$48.59	$10.33	$11.47	$7.04	$0.00	$77.43
8 / 80.00		$48.59	$10.33	$11.47	$7.04	$0.00	$77.43
Apprentice Notes							
Steps are 750 hrs.							
Apprentice to Journeyworker Ratio: 1:1							
FORK LIFT/CHERRY PICKER	6/1/2026	$59.38	$17.05	$13.35	$3.25	$0.00	$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.83	$17.05	$13.35	$3.25	$0.00	$94.48
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATOR/LIGHTING PLANT/HEATERS	6/1/2026	$37.63	$17.05	$13.35	$3.25	$0.00	$71.28
OPERATING ENGINEERS LOCAL 4	12/1/2026	$38.58	$17.05	$13.35	$3.25	$0.00	$72.23
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	6/1/2026	$44.73	$11.20	$8.40	$6.05	$0.00	$70.38
GLAZIERS LOCAL 1333	6/1/2027	$46.73	$11.60	$8.55	$6.60	$0.00	$73.48
GLAZIERS LOCAL 1333	6/1/2028	$48.73	$12.00	$8.70	$7.20	$0.00	$76.63
Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)							
Effective Date: 6/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 50.00		$22.37	$11.20	$8.40	$6.05	$0.00	$48.02
2 / 56.25		$25.16	$11.20	$8.40	$6.05	$0.00	$50.81
3 / 62.50		$27.96	$11.20	$8.40	$6.05	$0.00	$53.61
4 / 68.75		$30.75	$11.20	$8.40	$6.05	$0.00	$56.40
5 / 75.00		$33.55	$11.20	$8.40	$6.05	$0.00	$59.20
6 / 81.25		$36.34	$11.20	$8.40	$6.05	$0.00	$61.99
7 / 87.50		$39.14	$11.20	$8.40	$6.05	$0.00	$64.79
8 / 93.75		$41.93	$11.20	$8.40	$6.05	$0.00	$67.58

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)

Effective Date: 6/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.37	$11.60	$8.55	$6.60	$0.00	$50.12
2	56.25	$26.29	$11.60	$8.55	$6.60	$0.00	$53.04
3	62.50	$29.21	$11.60	$8.55	$6.60	$0.00	$55.96
4	68.75	$32.13	$11.60	$8.55	$6.60	$0.00	$58.88
5	75.00	$35.05	$11.60	$8.55	$6.60	$0.00	$61.80
6	81.25	$37.97	$11.60	$8.55	$6.60	$0.00	$64.72
7	87.50	$40.89	$11.60	$8.55	$6.60	$0.00	$67.64
8	93.75	$43.81	$11.60	$8.55	$6.60	$0.00	$70.56

Apprentice to Journeyworker Ratio: 3:1

HOISTING ENGINEER/CRANES/GRADALLS	6/1/2026	$59.38	$17.05	$13.35	$3.25	$0.00	$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.83	$17.05	$13.35	$3.25	$0.00	$94.48
OPERATING ENGINEERS LOCAL 4							

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$32.66	$0.00	$0.00	$0.00	$0.00	$32.66
2	60.00	$35.63	$17.05	$13.35	$3.25	$0.00	$69.28
3	65.00	$38.60	$17.05	$13.35	$3.25	$0.00	$72.25
4	70.00	$41.57	$17.05	$13.35	$3.25	$0.00	$75.22
5	75.00	$44.54	$17.05	$13.35	$3.25	$0.00	$78.19
6	80.00	$47.50	$17.05	$13.35	$3.25	$0.00	$81.15
7	85.00	$50.47	$17.05	$13.35	$3.25	$0.00	$84.12
8	90.00	$53.44	$17.05	$13.35	$3.25	$0.00	$87.09

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 12/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$33.46	$0.00	$0.00	$0.00	$0.00	$33.46
2	60.00	$36.50	$17.05	$13.35	$3.25	$0.00	$70.15
3	65.00	$39.54	$17.05	$13.35	$3.25	$0.00	$73.19
4	70.00	$42.58	$17.05	$13.35	$3.25	$0.00	$76.23
5	75.00	$45.62	$17.05	$13.35	$3.25	$0.00	$79.27
6	80.00	$48.66	$17.05	$13.35	$3.25	$0.00	$82.31
7	85.00	$51.71	$17.05	$13.35	$3.25	$0.00	$85.36
8	90.00	$54.75	$17.05	$13.35	$3.25	$0.00	$88.40

Apprentice to Journeyworker Ratio: 1:6

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 17 SHEETMETAL WORKERS LOCAL 17 - B	4/1/2026	$44.93	$15.25	$13.63	$6.15	$2.24	$82.20
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 17 SHEETMETAL WORKERS LOCAL 17 - B	4/1/2026	$44.93	$15.25	$13.63	$6.15	$2.24	$82.20
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER) PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS LABORERS LABORERS - ZONE 2	6/1/2026	$42.41	$10.90	$9.75	$9.11	$0.00	$72.17
	12/1/2026	$43.85	$10.90	$9.75	$9.11	$0.00	$73.61
	6/1/2027	$45.30	$10.90	$9.75	$9.11	$0.00	$75.06
	12/1/2027	$46.75	$10.90	$9.75	$9.11	$0.00	$76.51
	6/1/2028	$48.25	$10.90	$9.75	$9.11	$0.00	$78.01
	12/1/2028	$49.75	$10.90	$9.75	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$42.41	$10.90	$9.75	$9.21	$0.00	$72.27
	12/1/2026	$43.85	$10.90	$9.75	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SOUTHERN MASS)	9/1/2025	$54.31	$14.75	$9.52	$10.09	$0.00	$88.67
	9/1/2026	$57.38	$14.75	$9.52	$10.09	$0.00	$91.74

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.16	$14.75	$9.27	$5.05	$0.00	$56.23
2	60.00	$32.59	$14.75	$9.32	$6.05	$0.00	$62.71
3	70.00	$38.02	$14.75	$9.37	$7.06	$0.00	$69.20
4	80.00	$43.45	$14.75	$9.42	$8.07	$0.00	$75.69

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: INSULATOR (PIPES & TANKS)							
Effective Date: 9/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 50.00		$28.69	$14.75	$9.27	$5.05	$0.00	$57.76
2 / 60.00		$34.43	$14.75	$9.32	$6.05	$0.00	$64.55
3 / 70.00		$40.17	$14.75	$9.37	$7.06	$0.00	$71.35
4 / 80.00		$45.90	$14.75	$9.42	$8.07	$0.00	$78.14
Apprentice to Journeyworker Ratio: 1:4							
IRONWORKER/WELDER IRONWORKERS LOCAL 37 IRONWORKERS LOCAL 37	3/16/2021	$42.46	$7.70	$12.10	$5.00	$0.00	$67.26
Apprentice: IRONWORKER/WELDER							
Effective Date: 3/16/2021							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 70.00		$29.72	$7.70	$12.10	$5.00	$0.00	$54.52
2 / 75.00		$31.85	$7.70	$12.10	$5.00	$0.00	$56.65
3 / 80.00		$33.97	$7.70	$12.10	$5.00	$0.00	$58.77
4 / 85.00		$36.09	$7.70	$12.10	$5.00	$0.00	$60.89
5 / 90.00		$38.21	$7.70	$12.10	$5.00	$0.00	$63.01
6 / 95.00		$40.34	$7.70	$12.10	$5.00	$0.00	$65.14
Apprentice to Journeyworker Ratio: 1:4							
JACKHAMMER & PAVING BREAKER OPERATOR LABORERS LABORERS - ZONE 2	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER LABORERS LABORERS - ZONE 2	6/1/2026	$41.66	$10.90	$9.75	$9.11	$0.00	$71.42
	12/1/2026	$43.10	$10.90	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.55	$10.90	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.00	$10.90	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.50	$10.90	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.00	$10.90	$9.75	$9.11	$0.00	$78.76
Apprentice: LABORER							
Effective Date: 6/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: LABORER

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.00	$10.90	$9.75	$9.11	$0.00	$54.76
2	70.00	$29.16	$10.90	$9.75	$9.11	$0.00	$58.92
3	80.00	$33.33	$10.90	$9.75	$9.11	$0.00	$63.09
4	90.00	$37.49	$10.90	$9.75	$9.11	$0.00	$67.25

Apprentice: LABORER

Effective Date: 12/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.86	$10.90	$9.75	$9.11	$0.00	$55.62
2	70.00	$30.17	$10.90	$9.75	$9.11	$0.00	$59.93
3	80.00	$34.48	$10.90	$9.75	$9.11	$0.00	$64.24
4	90.00	$38.79	$10.90	$9.75	$9.11	$0.00	$68.55

Apprentice to Journeyworker Ratio: 1:5

LABORER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$41.66	$10.90	$9.75	$9.21	$0.00	$71.52
	12/1/2026	$43.10	$10.90	$9.75	$9.21	$0.00	$72.96

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.00	$10.90	$9.75	$9.21	$0.00	$54.86
2	70.00	$29.16	$10.90	$9.75	$9.21	$0.00	$59.02
3	80.00	$33.33	$10.90	$9.75	$9.21	$0.00	$63.19
4	90.00	$37.49	$10.90	$9.75	$9.10	$0.00	$67.24

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.86	$10.90	$9.75	$9.21	$0.00	$55.72
2	70.00	$30.17	$10.90	$9.75	$9.21	$0.00	$60.03
3	80.00	$34.48	$10.90	$9.75	$9.21	$0.00	$64.34
4	90.00	$38.79	$10.90	$9.75	$9.21	$0.00	$68.65

Apprentice to Journeyworker Ratio: 1:5

LABORER: CARPENTER TENDER LABORERS	6/1/2026	$41.66	$10.90	$9.75	$9.11	$0.00	$71.42
	12/1/2026	$43.10	$10.90	$9.75	$9.11	$0.00	$72.86

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 2	6/1/2027	$44.55	$10.90	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.00	$10.90	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.50	$10.90	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.00	$10.90	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: CEMENT FINISHER TENDER	6/1/2026	$41.66	$10.90	$9.75	$9.11	$0.00	$71.42
LABORERS LABORERS - ZONE 2	12/1/2026	$43.10	$10.90	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.55	$10.90	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.00	$10.90	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.50	$10.90	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.00	$10.90	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	6/1/2026	$41.75	$10.90	$9.75	$9.65	$0.00	$72.05
LABORERS LABORERS - ZONE 2	12/7/2026	$43.19	$10.90	$9.75	$9.65	$0.00	$73.49
	6/7/2027	$44.64	$10.90	$9.75	$9.65	$0.00	$74.94
	12/6/2027	$46.09	$10.90	$9.75	$9.65	$0.00	$76.39
	6/5/2028	$47.59	$10.90	$9.75	$9.65	$0.00	$77.89
	12/4/2028	$49.09	$10.90	$9.75	$9.65	$0.00	$79.39
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS LABORERS - ZONE 2	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2026	$41.91	$10.90	$9.75	$9.21	$0.00	$71.77
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.35	$10.90	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER	6/1/2026	$41.66	$10.90	$9.75	$9.11	$0.00	$71.42
LABORERS LABORERS - ZONE 2	12/1/2026	$43.10	$10.90	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.55	$10.90	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.00	$10.90	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.50	$10.90	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.00	$10.90	$9.75	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/1/2026	$41.66	$10.90	$9.75	$9.11	$0.00	$71.42
LABORERS LABORERS - ZONE 2	12/1/2026	$43.10	$10.90	$9.75	$9.11	$0.00	$72.86
	6/1/2027	$44.55	$10.90	$9.75	$9.11	$0.00	$74.31
	12/1/2027	$46.00	$10.90	$9.75	$9.11	$0.00	$75.76
	6/1/2028	$47.50	$10.90	$9.75	$9.11	$0.00	$77.26
	12/1/2028	$49.00	$10.90	$9.75	$9.11	$0.00	$78.76
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LASER BEAM OPERATOR	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS LABORERS - ZONE 2	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LASER BEAM OPERATOR (HEAVY & HIGHWAY)	6/1/2026	$41.91	$10.90	$9.75	$9.21	$0.00	$71.77
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.35	$10.90	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
MARBLE & TILE FINISHERS	8/1/2026	$53.84	$12.84	$15.57	$5.78	$0.00	$88.03
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	$54.96	$12.84	$15.57	$5.78	$0.00	$89.15

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.92	$12.84	$15.57	$5.78	$0.00	$61.11
2	60.00	$32.30	$12.84	$15.57	$5.78	$0.00	$66.49
3	70.00	$37.69	$12.84	$15.57	$5.78	$0.00	$71.88
4	80.00	$43.07	$12.84	$15.57	$5.78	$0.00	$77.26
5	90.00	$48.46	$12.84	$15.57	$5.78	$0.00	$82.65

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$27.48	$12.84	$15.57	$5.78	$0.00	$61.67
2	60.00	$32.98	$12.84	$15.57	$5.78	$0.00	$67.17
3	70.00	$38.47	$12.84	$15.57	$5.78	$0.00	$72.66
4	80.00	$43.97	$12.84	$15.57	$5.78	$0.00	$78.16
5	90.00	$49.46	$12.84	$15.57	$5.78	$0.00	$83.65

Apprentice to Journeyworker Ratio: 1:5

MARBLE MASONS,TILELAYERS & TERRAZZO MECH	8/1/2026	$70.17	$12.84	$15.57	$7.99	$0.00	$106.57
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2027	$71.57	$12.84	$15.57	$7.99	$0.00	$107.97

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$35.09	$12.84	$15.57	$7.99	$0.00	$71.49

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
2	60.00	$42.10	$12.84	$15.57	$7.99	$0.00	$78.50
3	70.00	$49.12	$12.84	$15.57	$7.99	$0.00	$85.52
4	80.00	$56.14	$12.84	$15.57	$7.99	$0.00	$92.54
5	90.00	$63.15	$12.84	$15.57	$7.99	$0.00	$99.55

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 2/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$35.79	$12.84	$15.57	$7.99	$0.00	$72.19
2	60.00	$42.94	$12.84	$15.57	$7.99	$0.00	$79.34
3	70.00	$50.10	$12.84	$15.57	$7.99	$0.00	$86.50
4	80.00	$57.26	$12.84	$15.57	$7.99	$0.00	$93.66
5	90.00	$64.41	$12.84	$15.57	$7.99	$0.00	$100.81

Apprentice to Journeyworker Ratio: 1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026 12/1/2026	$58.70 $60.14	$17.05 $17.05	$13.35 $13.35	$3.25 $3.25	$0.00 $0.00	$92.35 $93.79

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026 12/1/2026	$58.70 $60.14	$17.05 $17.05	$13.35 $13.35	$3.25 $3.25	$0.00 $0.00	$92.35 $93.79

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 2) MILLWRIGHTS LOCAL 1121 MILLWRIGHTS LOCAL 1121 - Zone 2	1/5/2026	$46.86	$10.58	$11.47	$10.00	$0.00	$78.91

Apprentice: MILLWRIGHT (Zone 2)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$25.77	$10.58	$0.00	$5.50	$0.00	$41.85
2	65.00	$30.46	$10.58	$0.00	$6.50	$0.00	$47.54
3	75.00	$35.15	$10.58	$11.47	$7.50	$0.00	$64.70
4	85.00	$39.83	$10.58	$11.47	$8.50	$0.00	$70.38

Apprentice Notes

Step 1&2 Appr. indentured after 1/6/2020 receive no pension,

Apprentice to Journeyworker Ratio: 1:4

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
MORTAR MIXER LABORERS LABORERS - ZONE 2	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026	$25.07	$17.05	$13.35	$3.25	$0.00	$58.72
	12/1/2026	$25.74	$17.05	$13.35	$3.25	$0.00	$59.39
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026	$31.17	$17.05	$13.35	$3.25	$0.00	$64.82
	12/1/2026	$31.97	$17.05	$13.35	$3.25	$0.00	$65.62
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	$59.56	$10.35	$12.00	$12.50	$0.00	$94.41

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.78	$10.35	$0.00	$0.00	$0.00	$40.13
2	55.00	$32.76	$10.35	$0.00	$6.93	$0.00	$50.04
3	60.00	$35.74	$10.35	$0.00	$7.56	$0.00	$53.65
4	65.00	$38.71	$10.35	$0.00	$8.19	$0.00	$57.25
5	70.00	$41.69	$10.35	$12.00	$8.82	$0.00	$72.86
6	75.00	$44.67	$10.35	$12.00	$9.45	$0.00	$76.47
7	80.00	$47.65	$10.35	$12.00	$10.08	$0.00	$80.08
8	90.00	$53.60	$10.35	$12.00	$11.34	$0.00	$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	$50.46	$10.35	$12.00	$12.60	$0.00	$85.41

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.23	$10.35	$0.00	$0.00	$0.00	$35.58
2	55.00	$27.75	$10.35	$0.00	$6.93	$0.00	$45.03
3	60.00	$30.28	$10.35	$0.00	$7.56	$0.00	$48.19
4	65.00	$32.80	$10.35	$0.00	$8.19	$0.00	$51.34
5	70.00	$35.32	$10.35	$12.00	$8.82	$0.00	$66.49
6	75.00	$37.85	$10.35	$12.00	$9.45	$0.00	$69.65
7	80.00	$40.37	$10.35	$12.00	$10.08	$0.00	$72.80
8	90.00	$45.41	$10.35	$12.00	$11.34	$0.00	$79.10

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	$48.52	$10.35	$12.00	$12.60	$0.00	$83.47

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.26	$10.35	$0.00	$0.00	$0.00	$34.61
2	55.00	$26.69	$10.35	$0.00	$6.93	$0.00	$43.97
3	60.00	$29.11	$10.35	$0.00	$7.56	$0.00	$47.02
4	65.00	$31.54	$10.35	$0.00	$8.19	$0.00	$50.08
5	70.00	$33.96	$10.35	$12.00	$8.82	$0.00	$65.13
6	75.00	$36.39	$10.35	$12.00	$9.45	$0.00	$68.19
7	80.00	$38.82	$10.35	$12.00	$10.08	$0.00	$71.25
8	90.00	$43.67	$10.35	$12.00	$11.34	$0.00	$77.36

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	$49.06	$10.35	$12.00	$12.60	$0.00	$84.01

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.53	$10.35	$0.00	$0.00	$0.00	$34.88
2	55.00	$26.98	$10.35	$0.00	$6.93	$0.00	$44.26
3	60.00	$29.44	$10.35	$0.00	$7.56	$0.00	$47.35

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER / TAPER (BRUSH, NEW) *							
Effective Date: 1/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
4 / 65.00		$31.89	$10.35	$0.00	$8.19	$0.00	$50.43
5 / 70.00		$34.34	$10.35	$12.00	$8.82	$0.00	$65.51
6 / 75.00		$36.80	$10.35	$12.00	$9.45	$0.00	$68.60
7 / 80.00		$39.25	$10.35	$12.00	$10.08	$0.00	$71.68
8 / 90.00		$44.15	$10.35	$12.00	$11.34	$0.00	$77.84
Apprentice to Journeyworker Ratio: 1:1							
PAINTER / TAPER (BRUSH, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	$47.12	$10.35	$12.00	$12.60	$0.00	$82.07
Apprentice: PAINTER / TAPER (BRUSH, REPAINT)							
Effective Date: 1/1/2026							
Step / Percent		**Apprentice Base Wage**	**Health**	**Pension**	**Annuity**	**Supplemental Unemployment**	**Total Rate**
1 / 50.00		$23.56	$10.35	$0.00	$0.00	$0.00	$33.91
2 / 55.00		$25.92	$10.35	$0.00	$6.93	$0.00	$43.20
3 / 60.00		$28.27	$10.35	$0.00	$7.56	$0.00	$46.18
4 / 65.00		$30.63	$10.35	$0.00	$8.19	$0.00	$49.17
5 / 70.00		$32.98	$10.35	$12.00	$8.82	$0.00	$64.15
6 / 75.00		$35.34	$10.35	$12.00	$9.45	$0.00	$67.14
7 / 80.00		$37.70	$10.35	$12.00	$10.08	$0.00	$70.13
8 / 90.00		$42.41	$10.35	$12.00	$11.34	$0.00	$76.10
Apprentice to Journeyworker Ratio: 1:1							
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$41.66	$10.90	$9.75	$9.21	$0.00	$71.52
	12/1/2026	$43.10	$10.90	$9.75	$9.21	$0.00	$72.96
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2026	$41.78	$16.17	$21.78	$0.00	$0.00	$79.73
	12/1/2026	$41.78	$16.17	$23.52	$0.00	$0.00	$81.47
	1/1/2027	$41.78	$16.77	$23.52	$0.00	$0.00	$82.07
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	$51.97	$10.08	$11.62	$12.67	$0.00	$86.34
For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 2)	8/1/2024	$51.97	$10.08	$11.62	$12.67	$0.00	$86.34

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PILE DRIVER							
Effective Date: 8/1/2024							
Step / Percent		**Apprentice Base Wage**					
1 / 45.00		$23.39	$10.08	$0.00	$2.53	$0.00	$36.00
2 / 55.00		$28.58	$10.08	$0.00	$5.07	$0.00	$43.73
3 / 70.00		$36.38	$10.08	$11.62	$7.60	$0.00	$65.68
4 / 80.00		$41.58	$10.08	$11.62	$10.14	$0.00	$73.42
Apprentice to Journeyworker Ratio: 1:5							
PIPELAYER	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
LABORERS - ZONE 2	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
PIPELAYER (HEAVY & HIGHWAY)	6/1/2026	$41.91	$10.90	$9.75	$9.21	$0.00	$71.77
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.21	$0.00	$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
PLUMBER & PIPEFITTER	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
PLUMBERS & PIPEFITTERS LOCAL 51							
PLUMBERS & PIPEFITTERS LOCAL 51							
Apprentice: PLUMBER & PIPEFITTER							
Effective Date: 8/25/2025							
Step / Percent		**Apprentice Base Wage**					
1 / 40.00		$22.10	$10.15	$2.50	$0.00	$0.00	$34.75
2 / 50.00		$27.62	$10.15	$2.50	$0.00	$0.00	$40.27
3 / 60.00		$33.14	$10.15	$8.40	$0.50	$0.00	$52.19
4 / 70.00		$38.67	$10.15	$13.44	$0.80	$0.00	$63.06
5 / 80.00		$44.19	$10.15	$16.80	$1.00	$0.00	$72.14
Apprentice to Journeyworker Ratio: 1:3							
PNEUMATIC CONTROLS (TEMP.)	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
PLUMBERS & PIPEFITTERS LOCAL 51							
PLUMBERS & PIPEFITTERS LOCAL 51							
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
PNEUMATIC DRILL/TOOL OPERATOR	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
LABORERS - ZONE 2	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	6/1/2026	$41.91	$10.90	$9.75	$9.21	$0.00	$71.77
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$43.35	$10.90	$9.75	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWDERMAN & BLASTER	6/1/2026	$42.66	$10.90	$9.75	$9.11	$0.00	$72.42
LABORERS LABORERS - ZONE 2	12/1/2026	$44.10	$10.90	$9.75	$9.11	$0.00	$73.86
	6/1/2027	$45.55	$10.90	$9.75	$9.11	$0.00	$75.31
	12/1/2027	$47.00	$10.90	$9.75	$9.11	$0.00	$76.76
	6/1/2028	$48.50	$10.90	$9.75	$9.11	$0.00	$78.26
	12/1/2028	$50.00	$10.90	$9.75	$9.11	$0.00	$79.76
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2026	$42.66	$10.90	$9.75	$9.21	$0.00	$72.52
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2026	$44.10	$10.90	$9.75	$9.21	$0.00	$73.96
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
POWER SHOVEL/DERRICK/TRENCHING MACHINE	6/1/2026	$59.38	$17.05	$13.35	$3.25	$0.00	$93.03
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.83	$17.05	$13.35	$3.25	$0.00	$94.48
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (CONCRETE)	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER)	6/1/2026	$37.63	$17.05	$13.35	$3.25	$0.00	$71.28
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2026	$38.58	$17.05	$13.35	$3.25	$0.00	$72.23
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
READY-MIX CONCRETE DRIVER	1/1/2025	$27.60	$11.26	$6.15	$0.00	$0.00	$45.01
TEAMSTERS 170 TEAMSTERS 170 - Dauphinais (Bellingham)							
RECLAIMERS	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
RIDE-ON MOTORIZED BUGGY OPERATOR	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS LABORERS - ZONE 2	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
ROLLER/SPREADER/MULCHING MACHINE	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)	2/1/2026	$53.53	$14.53	$12.67	$9.03	$0.00	$89.76
ROOFERS LOCAL 33							
ROOFERS LOCAL 33							

Apprentice: ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)

Effective Date: 2/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.77	$14.53	$6.52	$9.03	$0.00	$56.85
2	60.00	$32.12	$14.53	$12.67	$9.03	$0.00	$68.35
3	65.00	$34.79	$14.53	$12.67	$9.03	$0.00	$71.02
4	75.00	$40.15	$14.53	$12.67	$9.03	$0.00	$76.38
5	85.00	$45.50	$14.53	$12.67	$9.03	$0.00	$81.73

Apprentice Notes

** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1

Apprentice to Journeyworker Ratio: 1:5

ROOFER SLATE / TILE / PRECAST CONCRETE	2/1/2026	$53.78	$14.53	$12.67	$9.03	$0.00	$90.01
ROOFERS LOCAL 33							
ROOFERS LOCAL 33							
For apprentice rates see "Apprentice- ROOFER"							
SHEETMETAL WORKER	4/1/2026	$44.93	$15.25	$13.63	$6.15	$2.24	$82.20
SHEETMETAL WORKERS LOCAL 17							
SHEETMETAL WORKERS LOCAL 17 - B							

Apprentice: SHEETMETAL WORKER

Effective Date: 4/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$17.97	$15.25	$4.27	$0.00	$1.09	$38.58
2	45.00	$20.22	$15.25	$4.80	$0.00	$1.17	$41.44
3	50.00	$22.47	$15.25	$12.56	$0.00	$1.45	$51.73
4	55.00	$24.71	$15.25	$12.56	$0.00	$1.52	$54.04
5	60.00	$26.96	$15.25	$12.56	$3.69	$1.64	$60.10
6	65.00	$29.20	$15.25	$12.56	$4.00	$1.71	$62.72
7	70.00	$31.45	$15.25	$12.56	$4.31	$1.78	$65.35
8	75.00	$33.70	$15.25	$12.56	$4.61	$1.86	$67.98
9	80.00	$35.94	$15.25	$12.56	$4.92	$1.93	$70.60
10	85.00	$38.19	$15.25	$12.56	$5.23	$2.00	$73.23

Apprentice to Journeyworker Ratio: 1:4

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	6/1/2026	$42.53	$16.17	$21.78	$0.00	$0.00	$80.48
	12/1/2026	$42.53	$16.17	$23.52	$0.00	$0.00	$82.22
	1/1/2027	$42.53	$16.77	$23.52	$0.00	$0.00	$82.82
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 550 SPRINKLER FITTERS LOCAL 550 - (Section B) Zone 2	1/1/2026	$64.85	$13.45	$7.45	$18.25	$0.00	$104.00

Apprentice: SPRINKLER FITTER

Effective Date: 1/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	0.00	$22.70	$13.45	$13.84	$0.00	$0.00	$49.99
2	0.00	$25.94	$13.45	$14.75	$0.00	$0.00	$54.14
3	0.00	$29.18	$13.45	$15.67	$0.00	$0.00	$58.30
4	0.00	$32.43	$13.45	$16.57	$0.00	$0.00	$62.45
5	0.00	$35.67	$13.45	$17.49	$0.00	$0.00	$66.61
6	0.00	$38.91	$13.45	$18.40	$0.00	$0.00	$70.76
7	0.00	$42.15	$13.45	$19.32	$0.00	$0.00	$74.92
8	0.00	$45.40	$13.45	$20.22	$0.00	$0.00	$79.07
9	0.00	$48.64	$13.45	$21.15	$0.00	$0.00	$83.24
10	0.00	$51.88	$13.45	$22.05	$0.00	$0.00	$87.38

Apprentice Notes

Apprentice entered prior 9/30/10:

Apprentice to Journeyworker Ratio: 1:3

STEAM BOILER OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TELECOMMUNICATION TECHNICIAN TELECOMMUNICATION TECHNICIAN ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025	$42.52	$12.00	$12.05	$3.25	$0.00	$69.82
	9/1/2026	$44.41	$12.25	$12.59	$3.50	$0.00	$72.75
	9/1/2027	$46.51	$12.50	$13.18	$3.75	$0.00	$75.94
For apprentice rates and ratios see "Apprentice- ELECTRICIAN"							
TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	8/1/2026	$69.09	$12.84	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$70.49	$12.84	$15.57	$8.02	$0.00	$106.92

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$34.55	$12.84	$15.57	$8.02	$0.00	$70.98
2	60.00	$41.45	$12.84	$15.57	$8.02	$0.00	$77.88
3	70.00	$48.36	$12.84	$15.57	$8.02	$0.00	$84.79
4	80.00	$55.27	$12.84	$15.57	$8.02	$0.00	$91.70
5	90.00	$62.18	$12.84	$15.57	$8.02	$0.00	$98.61

Apprentice: TERRAZZO FINISHERS

Effective Date: 2/1/2027

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$35.25	$12.84	$15.57	$8.02	$0.00	$71.68
2	60.00	$42.29	$12.84	$15.57	$8.02	$0.00	$78.72
3	70.00	$49.34	$12.84	$15.57	$8.02	$0.00	$85.77
4	80.00	$56.39	$12.84	$15.57	$8.02	$0.00	$92.82
5	90.00	$63.44	$12.84	$15.57	$8.02	$0.00	$99.87

Apprentice to Journeyworker Ratio: 1:5

TEST BORING DRILLER	6/1/2026	$53.25	$10.90	$9.75	$9.80	$0.00	$83.70
LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2026	$54.75	$10.90	$9.75	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2026	$49.37	$10.90	$9.75	$9.80	$0.00	$79.82
LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2026	$50.87	$10.90	$9.75	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2026	$49.25	$10.90	$9.75	$9.80	$0.00	$79.70
LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2026	$50.75	$10.90	$9.75	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS/PORTABLE STEAM GENERATORS	6/1/2026	$58.70	$17.05	$13.35	$3.25	$0.00	$92.35
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.14	$17.05	$13.35	$3.25	$0.00	$93.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2026	$42.82	$16.17	$23.52	$0.00	$0.00	$82.51
	1/1/2027	$42.82	$16.77	$23.52	$0.00	$0.00	$83.11
TUNNEL WORK - COMPRESSED AIR	6/1/2026	$61.48	$10.90	$9.75	$10.25	$0.00	$92.38
LABORERS LABORERS (COMPRESSED AIR)	12/1/2026	$62.98	$10.90	$9.75	$10.25	$0.00	$93.88

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2026	$63.48	$10.90	$9.75	$10.25	$0.00	$94.38
LABORERS	12/1/2026	$64.98	$10.90	$9.75	$10.25	$0.00	$95.88
LABORERS (COMPRESSED AIR)							
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2026	$53.55	$10.90	$9.75	$10.25	$0.00	$84.45
LABORERS	12/1/2026	$55.05	$10.90	$9.75	$10.25	$0.00	$85.95
LABORERS (FREE AIR TUNNEL)							
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2026	$55.55	$10.90	$9.75	$10.25	$0.00	$86.45
LABORERS	12/1/2026	$57.05	$10.90	$9.75	$10.25	$0.00	$87.95
LABORERS (FREE AIR TUNNEL)							
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2026	$42.24	$16.17	$21.78	$0.00	$0.00	$80.19
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2026	$42.24	$16.17	$23.52	$0.00	$0.00	$81.93
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2027	$42.24	$16.77	$23.52	$0.00	$0.00	$82.53
WAGON DRILL OPERATOR	6/1/2026	$41.91	$10.90	$9.75	$9.11	$0.00	$71.67
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.11	$0.00	$73.11
LABORERS - ZONE 2	6/1/2027	$44.80	$10.90	$9.75	$9.11	$0.00	$74.56
	12/1/2027	$46.25	$10.90	$9.75	$9.11	$0.00	$76.01
	6/1/2028	$47.75	$10.90	$9.75	$9.11	$0.00	$77.51
	12/1/2028	$49.25	$10.90	$9.75	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2026	$41.91	$10.90	$9.75	$9.21	$0.00	$71.77
LABORERS	12/1/2026	$43.35	$10.90	$9.75	$9.21	$0.00	$73.21
LABORERS - ZONE 2 (HEAVY & HIGHWAY)							
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
WASTE WATER PUMP OPERATOR	6/1/2026	$59.38	$17.05	$13.35	$3.25	$0.00	$93.03
OPERATING ENGINEERS LOCAL 4	12/1/2026	$60.83	$17.05	$13.35	$3.25	$0.00	$94.48
OPERATING ENGINEERS LOCAL 4							
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
WATER METER INSTALLER	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
PLUMBERS & PIPEFITTERS LOCAL 51							
PLUMBERS & PIPEFITTERS LOCAL 51							
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"							

Marine Drilling

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BLASTER MARINE DRILLING MARINE DRILLING	1/1/2018	$41.82	$7.63	$2.35	$1.25	$0.00	$53.05
BOAT CAPTAIN MARINE DRILLING MARINE DRILLING	1/1/2018	$33.87	$7.63	$2.35	$0.95	$0.00	$44.80
BOAT CAPTAIN / Over 1,000 hp MARINE DRILLING MARINE DRILLING	1/1/2018	$38.06	$7.63	$2.35	$1.25	$0.00	$49.29
CORE DRILLER MARINE DRILLING MARINE DRILLING	1/1/2018	$31.43	$7.63	$2.25	$0.65	$0.00	$41.96
CORE DRILLER HELPER MARINE DRILLING MARINE DRILLING	1/1/2018	$28.47	$7.63	$2.35	$0.65	$0.00	$39.10
DRILLER MARINE DRILLING MARINE DRILLING	1/1/2018	$39.70	$7.63	$2.35	$1.25	$0.00	$50.93
ENGINEER MARINE DRILLING MARINE DRILLING	1/1/2018	$39.69	$7.63	$2.25	$1.25	$0.00	$50.82
HELPER MARINE DRILLING MARINE DRILLING	1/1/2018	$34.24	$7.63	$2.35	$0.65	$0.00	$44.87
MACHINIST MARINE DRILLING MARINE DRILLING	1/1/2018	$38.88	$7.63	$2.35	$0.95	$0.00	$49.81
OILER - MARINE DRILLING MARINE DRILLING MARINE DRILLING	1/1/2018	$34.24	$7.63	$2.35	$0.65	$0.00	$44.87
TUG DECKHAND MARINE DRILLING MARINE DRILLING	1/1/2018	$27.61	$7.63	$2.35	$0.65	$0.00	$38.24
WELDER MARINE DRILLING MARINE DRILLING	1/1/2018	$38.88	$7.63	$2.35	$0.95	$0.00	$49.81

Op Eng Marine (Dredging Work)

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOAT OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$29.26	$7.63	$2.35	$0.95	$0.00	$40.19
CERTIFIED WELDER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$31.09	$7.63	$2.35	$1.25	$0.00	$42.32
CHIEF WELDER/ CHIEF MATE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
DERRICK / SPIDER / SPILLBARGE OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
DRAG BARGE OPERATOR / WELDER / MATE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$30.24	$7.63	$2.35	$0.95	$0.00	$41.17
ENGINEER / ELECTRICIAN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
LICENSED BOAT OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.02	$7.63	$2.35	$1.25	$0.00	$44.25
LICENSED TUG OPERATOR OVER 1000HP OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$38.18	$7.63	$2.35	$1.25	$0.00	$49.41
MAINTENANCE ENGINEER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$33.03	$7.63	$2.35	$1.25	$0.00	$44.26
OILER - MARINE DIVISION OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$24.30	$7.63	$2.35	$0.65	$0.00	$34.93
OPERATOR / LEVERMAN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$38.18	$7.63	$2.35	$1.25	$0.00	$49.41
RODMAN / SCOWMAN OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$24.30	$7.63	$2.35	$0.65	$0.00	$34.93
SHOREMAN / DECKHAND OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS - MARINE DIVISION	10/1/2017	$24.30	$7.63	$2.35	$0.65	$0.00	$34.93

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CABLE TECHNICIAN (Power Zone)	8/31/2025	$36.55	$10.75	$1.10	$1.00	$0.00	$49.40
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$38.13	$11.00	$1.14	$1.00	$0.00	$51.27
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$39.65	$11.25	$1.19	$1.00	$0.00	$53.09
For apprentice rates see "Apprentice- LINEMAN"							
CABLEMAN (Underground Ducts & Cables)	8/31/2025	$51.78	$10.75	$1.55	$10.71	$0.00	$74.79
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$54.02	$11.00	$1.62	$11.14	$0.00	$77.78
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$56.17	$11.25	$1.69	$11.57	$0.00	$80.68
For apprentice rates see "Apprentice- LINEMAN"							
DRIVER / GROUNDMAN CDL	8/31/2025	$42.64	$10.75	$1.28	$10.45	$0.00	$65.12
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$44.49	$11.00	$1.33	$10.80	$0.00	$67.62
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$46.26	$11.25	$1.39	$11.15	$0.00	$70.05
For apprentice rates see "Apprentice- LINEMAN"							
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs)	8/31/2025	$33.51	$10.75	$1.01	$1.00	$0.00	$46.27
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$34.95	$11.00	$1.05	$1.00	$0.00	$48.00
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$36.64	$11.25	$1.09	$1.00	$0.00	$49.98
For apprentice rates see "Apprentice- LINEMAN"							
EQUIPMENT OPERATOR (Class A CDL)	8/31/2025	$51.78	$10.75	$1.55	$14.79	$0.00	$78.87
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$54.02	$11.00	$1.62	$15.22	$0.00	$81.86
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$56.17	$11.25	$1.69	$15.65	$0.00	$84.76
For apprentice rates see "Apprentice- LINEMAN"							
EQUIPMENT OPERATOR (Class B CDL)	8/31/2025	$45.69	$10.75	$1.37	$11.27	$0.00	$69.08
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$47.66	$11.00	$1.43	$11.65	$0.00	$71.74
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$49.56	$11.25	$1.49	$12.03	$0.00	$74.33
For apprentice rates see "Apprentice- LINEMAN"							
GROUNDMAN	8/31/2025	$33.51	$10.75	$1.01	$1.00	$0.00	$46.27
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$34.95	$11.00	$1.05	$1.00	$0.00	$48.00
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$36.34	$11.25	$1.09	$1.00	$0.00	$49.68
For apprentice rates see "Apprentice- LINEMAN"							
GROUNDMAN -Inexperienced (<2000 Hrs.)	8/31/2025	$27.41	$10.75	$0.82	$1.00	$0.00	$39.98
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$28.60	$11.00	$0.86	$1.00	$0.00	$41.46
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$29.74	$11.25	$0.89	$1.00	$0.00	$42.88
For apprentice rates see "Apprentice- LINEMAN"							
JOURNEYMAN LINEMAN	8/31/2025	$60.92	$10.75	$1.83	$18.00	$0.00	$91.50
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/30/2026	$63.55	$11.00	$1.91	$18.50	$0.00	$94.96
OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	8/29/2027	$66.08	$11.25	$1.98	$19.00	$0.00	$98.31

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 8/31/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Outside Electrical

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 8/31/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$36.55	$10.75	$1.10	$2.50	$0.00	$50.90
2	65.00	$39.60	$10.75	$1.19	$2.50	$0.00	$54.04
3	70.00	$42.64	$10.75	$1.28	$2.50	$0.00	$57.17
4	75.00	$45.69	$10.75	$1.37	$4.00	$0.00	$61.81
5	80.00	$48.74	$10.75	$1.46	$4.00	$0.00	$64.95
6	85.00	$51.78	$10.75	$1.55	$4.00	$0.00	$68.08
7	90.00	$54.83	$10.75	$1.64	$6.00	$0.00	$73.22

Apprentice: JOURNEYMAN LINEMAN

Effective Date: 8/30/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$38.13	$11.00	$1.14	$2.50	$0.00	$52.77
2	65.00	$41.31	$11.00	$1.24	$2.50	$0.00	$56.05
3	70.00	$44.49	$11.00	$1.33	$2.50	$0.00	$59.32
4	75.00	$47.66	$11.00	$1.43	$4.00	$0.00	$64.09
5	80.00	$50.84	$11.00	$1.53	$4.00	$0.00	$67.37
6	85.00	$54.02	$11.00	$1.62	$4.00	$0.00	$70.64
7	90.00	$57.20	$11.00	$1.72	$6.00	$0.00	$75.92

Apprentice to Journeyworker Ratio: 1:2

TELEDATA CABLE SPLICER OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	2/4/2019	$30.73	$4.70	$0.92	$2.25	$0.00	$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104 OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	2/4/2019	$28.93	$4.70	$0.89	$2.25	$0.00	$36.77

Additional Apprentice Information

All apprentices must be registered with the Division of Apprenticeship Training(DAS) in accordance with M.G.L.c. 23, §§ 11E-11L. Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the hourly prevailing wage rate established by the Commissioner under the provisions of M.G.L.c. 149, §§ 26-27D.

Apprentice ratios are established by DAS pursuant to M.G.L.c. 23, §§ 11E-11L. Ratios are expressed as the allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified. The ratios listed herein have been taken from relevant private collective bargaining agreements(CBAs) and are provided for illustrative purposes only. They have not been independently verified as being accurate or continuing to be accurate.

Parties having questions regarding what ratio to use should contact DAS.

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STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS
Revised August 19, 2026

1. As used in these specifications:

   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted:

   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority.

   c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

   d. "Minority" includes:

      (i) Black (all persons having origins in any of the black African racial groups not of Hispanic origin);
      (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $ 10,000 the provisions of the specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (41 CFR 60-4.5 and 23 CFR Part 230) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in Paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

   a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

   b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

   c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

   d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

   e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

   f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

   g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

   h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements are in compliance with 41 CFR Part 60-3 and 23 CFR Part 230.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables of affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11 The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered by the Office of Federal Contract Compliance programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8 and 23 CFR Part 230.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as many be required by the Government and keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

APPENDIX A

The following goals and timetables for female utilization shall be included in all Federal and federally assisted construction contracts and subcontracts in excess of $ 10,000. The goals are applicable to the Contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a Federal or federally-assisted construction contract or subcontract.

Area covered: Goal for Women apply nationwide

Goals and Timetables

Timetable	Goals (percent)
From Apr. 1, 1980 until further notice	6.9

APPENDIX B-80

Until further notice, the following goals for minority utilization in each construction craft and trade shall included in all Federal or federally assisted construction contracts and subcontracts in excess of $ 10,000 to be performed in the respective geographical areas. The goals are applicable to each nonexempt contractor's total on- site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or nonfederally related project, contract or subcontract.

Construction contractors participating in an approved Hometown Plan (see 41 CFR 6-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply with the applicable SMSA or EA goal contained in this Appendix B-80.

Economic Areas

STATE:	Goals (percent)
MASSACHUSETTS	
004 Boston MA: SMSA Counties: 1123 Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH	4.0
MA Essex, MA Middlesex, MA Norfolk, MA Plymouth, MA Suffolk, NH Rockingham.	
5403 Fall River- New Bedford MA, Bristol	1.6
9243 Worcester-Fitchburg-Leominster, MA	1.6
6323 Springfield-Chicopee-Holyoke MA-CT MA Hampden, MA Hampshire	4.8
Non-SMSA Counties: MA Barnstable, MA Dukes, MA Nantucket	3.6
Non-SMSA Counties: MA Franklin	5.9

APPENDIX C

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), age, sex, disability, or low-income status in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontractors, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to nondiscrimination on the grounds of race, color, national origin (including limited English proficiency), age, sex, disability, or low-income status.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Massachusetts Department of Transportation (MassDOT) or FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor will so certify to MassDOT or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Nondiscrimination provisions of this contract, MassDOT will impose such contract sanctions as it or FHWA may determine to be appropriate, including, but not limited to:

    a. withholding payments to the contractor under the contract until the contractor complies; and/or
    b. cancelling, terminating, or suspending a control, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as MassDOT or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request MassDOT to enter into any litigation to protect the interests of MassDOT. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX D

During the performance of this contact, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor," which includes consultants) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

PERTINENT NON-DISCRIMINATION AUTHORITIES:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-Aid programs and projects)

- Federal-Aid Highway Act of 1973 (23 U.S.C. § 324 *et seq.*) (prohibits discrimination on the basis of sex)

- Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability) and 49 CFR Part 27

- The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 *et seq.*) (prohibits discrimination on the basis of age)

- Airport and Airway Improvement Act of 1982 (49 U.S.C. § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex)

- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage, and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of Federal-Aid recipients, sub-recipients, and contractors, whether such programs or activities are Federally funded or not)

- Titles II and III of the Americans with Disabilities Act (42 U.S.C. §§ 12131-12189), as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38 (prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities)

- The Federal Aviation Administration's Non-Discrimination Statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex)

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations)

- Executive Order 13166, Improving Access to Services for People with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100)

- Title IX of the Education Amendments Act of 1972, as amended (20 U.S.C. 1681 *et seq.*) (prohibits discrimination on the basis of sex in education programs or activities)

*** END OF DOCUMENT ***

DOCUMENT 00875
TRAINEE SPECIAL PROVISIONS
Revised October, 2016

THE REQUIRED NUMBER OF TRAINEES TO BE TRAINED UNDER THIS CONTRACT WILL BE **3**

The contractor shall provide on-the job training aimed at developing full journeyworkers in the type of trade of job classification involved.

In the event that a contractor subcontracts a portion of the contract work, the General Contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeyworkers in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Massachusetts Department Of Transportation (MassDOT) for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyworker status is a primary objective of the Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority and women trainees (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that have been taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training.

No employee shall be trained under this Special Provision in any classification in which he or she has successfully completed a training course leading to journeyworker status or in which he or she has been employed as a journeyworker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the finding in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Massachusetts Department Of Transportation and the Federal Highway Administration. The Massachusetts Department Of Transportation and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyworker status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather that clerk-typist or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc. where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Federal Highway Administration division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Reimbursement

Under these Training Special Provisions, reimbursement will be as follows:

The Contractor will only be reimbursed 80 cents for each hour of on the job training as specified in the approved Training Program.

The Contractor is advised and encouraged that it may train additional persons in excess of the number specified and will be reimbursed as stated above. Reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement.

If less than full training specified in the approved training programs is provided, payment to the contractor will be made at a rate of 80 cents for each hour of training completed under this contract. However, no payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyworker, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision.

Payment

Trainees will be paid:

1. Percentage (%) of the journeyworker's rate as provided in the existing programs approved by the Department of Labor or Transportation as of September 15, 1970.

2. For journeyworker programs submitted by the Contractor and approved by Massachusetts Department Of Transportation and the Federal Highway Administration at least 60 percent of the appropriate minimum journeyworker's rate specified in the contract for the first half of the training period, 75 percent for the third quarter if the training period, and 90 percent for the last quarter of the training period.

3. For skilled laborer programs, the minimum starting wage rate of unskilled laborer. At the conclusion of training, he or she will be paid the minimum wage rate of the Classification for programs submitted by the Contractor and approved by the Massachusetts Department Of Transportation and the Federal Highway Administration.

4. For the purposes of meeting the legal requirements of State Prevailing Wage Law, please be advised that no person may be paid the Apprentice wage rate as listed on a MA Prevailing Wage Rates schedule, unless that person and program is registered with the Department of Labor Standards/Division of Apprentice Standards (DLS/DAS). Any person or program not registered with DLS/DAS, regardless of whether or not they are registered with any other federal, state, local, or private entity must be paid the journeyworker’s rate for the trade.

The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

Form FHWA-1409, Federal-aid Highway Construction Contracting Semi Annual Training Report, shall be submitted as per instructions on the Form.

*** END OF DOCUMENT ***

DOCUMENT 00880

Revised January 12, 2022

DEPARTMENT OF LABOR

Employment Standards Administration

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONTRACTS

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General Decision Number: MA20260017 05/18/2026

State: Massachusetts

Construction Types: Highway

Counties: Massachusetts Counties of Bristol

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

ELEC0103-003 09/01/2025

	Rates	Fringes
ELECTRICIAN (INCLUDES TRAFFIC SIGNALIZATION)	$ 66.17	37.08

ENGI0004-021 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR GROUP 2 BULLDOZER; GRADER/BLADE; MILLING MACHINE; ROLLER FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY	$ 57.18	33.70
POWER EQUIPMENT OPERATOR GROUP 1 BACKHOE/EXCAVATOR/TRACKHOE; BOBCAT/SKID STEER/SKID LOADER; BROOM/SWEEPER; CRANE; GRADALL; LOADER; PAVER (ASPHALT, AGGREGATE, AND CONCRETE); POST DRIVER (GUARDRAIL/FENCES) FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY	$ 57.83	33.70

IRON0007-029 09/16/2025

	Rates	Fringes
IRONWORKER: ORNAMENTAL	$ 57.57	37.67

LABO0133-001 12/01/2024

	Rates	Fringes
LABORER: CONCRETE SURFACER	$ 46.20	29.85

LABO0385-001 12/01/2024

	Rates	Fringes
LABORER: FENCE ERECTION	$ 38.95	29.41
LABORER: COMMON OR GENERAL	$ 38.95	29.41

LABO0721-001 12/01/2024

	Rates	Fringes
LABORER: GUARDRAIL INSTALLATION	$ 38.95	29.81

LABO0876-002 06/01/2018

	Rates	Fringes
LABORER LANDSCAPE	$ 33.25	22.92

PAIN0035-023 07/01/2024

	Rates	Fringes
PAINTER: STEEL	$ 56.76	36.00

SUMA2014-007 01/11/2017

	Rates	Fringes
TRUCK DRIVER: FLATBED TRUCK	$ 48.53	0.00
TRUCK DRIVER: DUMP TRUCK	$ 39.03	12.89
TRUCK DRIVER: CONCRETE TRUCK	$ 33.69	15.79
TRAFFIC CONTROL: LABORER-CONES/ BARRICADES/BARRELS - SETTER/MOVER/SWEEPER	$ 53.35	12.78
TRAFFIC CONTROL: FLAGGER	$ 23.00	20.44
PAINTER: SPRAY (LINESTRIPING)	$ 47.30	6.42
OPERATOR: PILEDRIVER	$ 42.56	17.34
OPERATOR: MECHANIC	$ 48.74	11.79
OPERATOR: FORKLIFT	$ 64.67	0.00
LABORER: JACK HAMMER	$ 35.32	18.48
LABORER: CONCRETE SAW (HAND HELD/WALK BEHIND)	$ 44.43	14.18
LABORER: ASPHALT, INCLUDES RAKER, SHOVELER, SPREADER AND DISTRIBUTOR	$ 34.72	16.01
IRONWORKER, STRUCTURAL	$ 45.19	17.30
IRONWORKER, REINFORCING	$ 42.13	18.15
CEMENT MASON/CONCRETE FINISHER	$ 56.70	21.08

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU" "UAVG" "SA" or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

General Decision Number: MA20260006 05/18/2026

State: Massachusetts

Construction Types: Heavy

Counties: Massachusetts Counties of
Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk and Worcester

Massachusetts All Dredging, except self-propelled hopper dredges, on the Atlantic Coast & tributary waters emptying into the Atlantic Ocean

Modification Number	Publication Date
1	01/30/2026
2	05/18/2026

ENGI0025-001 10/01/2025

	Rates	Fringes
DREDGING: CLASS D: OILER, DECKHAND, SHOREMAN, RODMAN, SCOWMAN, COOK, MESSMAN, PORTER/JANITOR. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) $1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) $1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR $1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) $1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG $1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) $1.55; WELDER (ABS CERTIFICATION) $1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED	$ 30.86	14.15
DREDGING: CLASS C2: BOAT OPERATOR. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) $1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) $1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR $1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) $1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG $1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) $1.55; WELDER (ABS CERTIFICATION) $1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED	$ 37.15	14.57

DREDGING: CLASS C1: MATE, DRAG BARGE OPERATOR, ASSISTANT FILL PLACER, WELDER, STEWARD. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) $1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) $1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR $1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) $1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG $1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) $1.55; WELDER (ABS CERTIFICATION) $1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....$ 38.38 14.66

DREDGING: CLASS B2: CERTIFIED WELDER. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) $1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) $1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR $1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) $1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG $1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) $1.55; WELDER (ABS CERTIFICATION) $1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....$ 39.46 14.73

DREDGING: CLASS B1: DERRICK OPERATOR (180 SWING), SPIDER/SPILL BARGE OPERATOR, ENGINEER, ELECTRICIAN, CHIEF WELDER, CHIEF MATE, FILL PLACER, OPERATOR II, MAINTENANCE ENGINEER, LICENSED BOAT OPERATOR, LICENSED CREW BOAT OPERATOR. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) $1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) $1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR $1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) $1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG $1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) $1.55; WELDER (ABS CERTIFICATION) $1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION:

EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE,
MULTIPLIED BY THE TOTAL HOURS WORKED.....$ 41.93 14.90
DREDGING: CLASS A2: CRANE OPERATOR (360 SWING)
INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR
(NCCCO LICENSE/CERTIFICATION) $1.80 LICENSED TUG
OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG
LICENSED MASTER OF TOWING VESSELS (MOTV) $1.80;
LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT
CAPTAIN) USCG LICENSED BOAT OPERATOR $1.30;
ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR
LICENSED ENGINEER (USCG) $1.80 OILER (QMED AND
TANKERMAN ENDORSEMENT (USCG) $1.80; ALL
CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG
$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN
ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS
(LIFEBOATMAN ENDORSEMENT ONLY (USCG) $1.55; WELDER
(ABS CERTIFICATION) $1.55 FOOTNOTES APPLICABLE
TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S
DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL
DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY,
VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY
B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT
TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....$ 43.20 14.99
DREDGING: CLASS A1: DECK CAPTAIN; MECHANICAL
DREDGE OPERATOR, LEVERMAN, LICENSED TUG OPERATOR
OVER 1000 HP. INCENTIVE PAY: (ADD TO HOURLY
RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) $1.80
LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS
MASTER) (USCG LICENSED MASTER OF TOWING VESSELS
(MOTV) $1.80; LICENSED BOAT OPERATOR (ASSIGNED AS
LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR
$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR
LICENSED ENGINEER (USCG) $1.80 OILER (QMED AND
TANKERMAN ENDORSEMENT (USCG) $1.80; ALL
CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG
$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN
ENDORSEMENT (USCG) $1.80; ALL CLASSIFICATIONS
(LIFEBOATMAN ENDORSEMENT ONLY (USCG) $1.55; WELDER
(ABS CERTIFICATION) $1.55 FOOTNOTES APPLICABLE
TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S
DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL
DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY,
VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY
B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT
TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....$ 48.48 15.34

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:
   a) a survey underlying a wage determination
   b) an existing published wage determination
   c) an initial WHD letter setting forth a position on a wage determination matter
   d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

General Decision Number: MA20260008 05/18/2026

State: Massachusetts

Construction Types: Heavy

Counties: Massachusetts Counties of Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth and Suffolk

Heavy and Marine Construction Projects

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

BOIL0029-001 01/01/2025

	Rates	Fringes
BOILERMAKER	$ 50.62	28.82

BRMA0001-011 02/01/2023

	Rates	Fringes
BRICKLAYER/CEMENT MASON (FOXBORO CHAPTER BRISTOL (ATTLEBORO, BERKLEY, DIGHTON, MANSFIELD, NORTH ATTLEBORO, NORTON, RAYNHAM, REHOBOTH, SEEKONK, TAUNTON); NORFOLK, (BELLINGHAM, CANTON, DEDHAM, FOXBORO, FRANKLIN, NORFOLK, NORWOOD, PLAINVILLE, SHARON, WALPOLE, WESTRWOOD, WRENTHAM); AND PLYMOUTH (LAKEVILLE))	$ 60.35	34.40

BRMA0001-012 02/01/2023

	Rates	Fringes
BRICKLAYER (LOWELL CHAPTER MIDDLESEX (ACTON, ASHBY, AYER, BEDFORD, BILLERICA, BOXBORO, CARLISLE, CHEMSFORD, DRACUT, DUNSTABALE, FT DEVENS, GROTON, LITTLETON, LOWELL, NORTH ACTON, PEPPERELL, SHIRLEY, SOUTH ACTON, TEWKSBURY, TOWNSEND, TYNGSBORO, WEST ACTON, WESTFORD, WILMINGTON))	$ 58.21	33.71

BRMA0001-013 08/01/2023

	Rates	Fringes
BRICKLAYER (LOWELL CHAPTER MIDDLESEX (ASHLAND, FRAMINGHAM, HOLLISTON, HOPKINTON, HUDSON, MAYNARD, NATICK, SHERBVORN, STOW); AND NORFOLK (MEDFIELD, MEDWAY, MILLIS))	$ 62.40	34.40

BRMA0003-001 08/01/2024

	Rates	Fringes
TERRAZZO FINISHER	$ 63.44	37.33
MARBLE, TILE & TERRAZZO WORKERS	$ 64.52	37.51
MARBLE & TILE FINISHER	$ 49.32	35.26

BRMA0003-003 08/01/2024

	Rates	Fringes
BRICKLAYER (BOSTON CHAPTER MIDDLESEX (ARLINGTON, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE, SOMERVILLE); NORFOLK (BROOKLINE, MILTON); AND SUFFOLK)	$ 64.50	37.54

BRMA0003-011 08/01/2024

	Rates	Fringes
BRICKLAYER/CEMENT MASON (LYNN CHAPTER ESSEX (AMESBURY, ANDOVER, BEVERLY, BOXFORD, DANVERS, ESSEX, GEORGETOWN, GLOUCESTER, GROVELAND, HAMILTON, HAVERHILL, IPSWICH, LAWRENCE, LYNN, LYNNFIELD, MANCHESTER, MARBLEHEAD, MERRIMAC, METHUEN, MIDDLETON, NAHANT, NEWBURY, NEWBURYPORT, NORTH ANDOVER, PEABODY, ROCKPORT, ROWLEY, SALISBURY, SALEM, SAUGUS, SWAMPSCOTT, TOPSFIELD, WAKEFIELD, WENHAM, WEST NEWBURY); AND MIDDLESEX (NORTH READING, READING, WAKEFIELD))	$ 64.50	37.54

BRMA0003-012 08/01/2024

	Rates	Fringes
BRICKLAYER (WALTHAM CHAPTER - MIDDLESEX (BELMONT, BURLINGTON, CONCORD, LEXINGTON, LINCOLN, STONEHAM, SUDBURY, WALTHAM, WATERTOWN, WAYLAND, WESTON, WINCHESTER, WOBURN))	$ 64.50	37.54

BRMA0003-014 08/01/2024

	Rates	Fringes
BRICKLAYER/CEMENT MASON (QUINCY CHAPTER PLYMOUTH COUNTY (ABINGTON, BRIDGEWATER, BROCKTON, CARVER, DUXBURY, EAST BRIDGEWATER, HALIFAX, HANOVER, HANSON, HINGHAM, HULL, KINGSTON, MARSHFIELD, MIDDLEBORO, NORWELL, PEMBROKE, PLYMOUTH, ROCKLAND, SCITUATE, WEST BRIDGEWATER, WHITMAN))	$ 64.50	37.54

BRMA0003-025 08/01/2024

	Rates	Fringes
BRICKLAYER/CEMENT MASON (NEW BEDFORD CHAPTER BARNSTABLE; BRISTOL (ACUSHNET, DARMOUTH, FAIRHAVEN, FALL RIVER, FREETOWN, NEW BEDFORD, SOMERSET, SWANSEA, WESTPORT); DUKES; NANTUCKET; PLYMOUTH (MARION, MATTAPOISETT, ROCHESTER, WAREHAM))	$ 64.50	37.54

BRMA0003-033 08/01/2024

	Rates	Fringes
BRICKLAYER, PLASTERER (NEWTON CHAPTER MIDDLESEX (NEWTON); NORFOLK (DOVER, NEEDHAM, WELLESLEY))	$ 64.50	37.54

CARP0056-001 08/01/2024

	Rates	Fringes
PILEDRIVERMAN (ALL OF SUFFOLK COUNTY; AND THOSE AREAS OF BARNSTABLE, BRISTOL, ESSEX, MIDDLESEX, NORFOLK, AND PLYMOUTH COUNTIES SITUATED INSIDE BOSTON BELTWAY (I-495) AND NORTH OF CAPE COD CANAL. ALL OF DUKES AND NANTUCKET COUNTIES)	$ 55.79	35.47

CARP0056-002 08/01/2024

	Rates	Fringes
PILEDRIVERMAN (THE AREAS OF BARNSTABLE, BRISTOL, PLYMOUTH, AND NORFOLK COUNTIES SITUATED OUTSIDE BOSTON BELTWAY (I-495) AND SOUTH OF CAPE COD CANAL).	$ 51.97	35.47

CARP0056-003 08/01/2024

	Rates	Fringes
PILEDRIVERMAN (THOSE AREAS OF ESSEX AND MIDDLESEX COUNTIES SITUATED OUTSIDE BOSTON BELTWAY (I-495))	$ 49.19	35.47

CARP0056-004 08/01/2024

	Rates	Fringes
DIVER TENDER	$ 61.70	35.47
DIVER	$ 78.11	35.47

CARP0327-002 09/01/2025

	Rates	Fringes
CARPENTER (MIDDLESEX (BELMONT, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, SOMERVILLE); NORFOLK (BROOKLINE, DEDHAM, MILTON); AND SUFFOLK COUNTIES)	$ 61.19	31.55

CARP0339-002 09/01/2025

	Rates	Fringes
CARPENTER (BRISTOL (ATTLEBOROUGH, NORTH ATTLEBOROUGH); ESSEX; MIDDLESEX (EXCEPT BELMONT, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, SOMERVILLE); AND NORFOLK (BELLINGHAM, BRAINTREE, CANTON, COHASSETT, FOXBORO, FRANKLIN, MEDFIELD, MEDWAY, MILLIS, NEEDHAM, NORFOLK, NORWOOD, PLAINVILLE, QUINCY, SHARON, WALPOLE, WELLESLEY, WESTWOOD, WEYMOUTH, WRENTHAM) COUNTIES)	$ 50.10	31.45

CARP0346-001 09/01/2025

	Rates	Fringes
CARPENTER (NORFOLK (BRAINTREE, QUINCY, COHASSET, WEYMOUTH, ETC.) PLYMOUTH (DUXBURY, HANOVER, HULL, HINGHAM, MARSHFIELD, NORWELL, PEMBROKE ROCKLAND, SCITUATE))	$ 50.10	31.45

CARP0624-002 09/01/2017

	Rates	Fringes
CARPENTER (DUKES; NANTUCKET)	$ 46.43	28.35

CARP0624-006 09/01/2017

	Rates	Fringes
CARPENTER (BARNSTABLE; BRISTOL (EXCEPT ATTLEBORO & NORTH ATTLEBORO); NORFOLK (AVON, HOLBROOK, RANDOLPH, STOUGHTON); PLYMOUTH (BRIDGEWATER, KINGSTON, LAKEVILLE, MIDDLEBORO, PLYMOUTH, S. HANOVER, WHITMAN))	$ 39.28	27.90

CARP1121-001 04/21/2025

	Rates	Fringes
MILLWRIGHT (SUFFOLK COUNTY)	$ 50.47	33.50

CARP1121-005 04/21/2025

	Rates	Fringes
MILLWRIGHT (BARNSTABLE, BRISTOL, DUKES, ESSEX, MIDDLESEX, NANTUCKET, NORFOLK AND PLYMOUTH COUNTIES)	$ 45.03	33.25

ELEC0096-001 09/07/2025

	Rates	Fringes
TELEDATA SYSTEM INSTALLER (MIDDLESEX (ASHBY, ASHLAND, AYER, FT. DEVENS, GROTON, HOPKINTON, HUDSON, MARLBORO, PEPPERELL, SHIRLEY, STOW, TOWNSEND))	$ 36.12	34.51
ELECTRICIAN (MIDDLESEX (ASHBY, ASHLAND, AYER, FT. DEVENS, GROTON, HOPKINTON, HUDSON, MARLBORO, PEPPERELL, SHIRLEY, STOW, TOWNSEND))	$ 48.16	36.20

ELEC0099-001 06/01/2025

	Rates	Fringes
TELEDATA SYSTEM INSTALLER (BRISTOL (ATTLEBORO, NORTH ATTLEBORO, SEEKONK))	$ 42.09	19.71
ELECTRICIAN (BRISTOL (ATTLEBORO, NORTH ATTLEBORO, SEEKONK))	$ 56.11	24.74

ELEC0103-002 09/01/2025

	Rates	Fringes
ELECTRICIAN (ESSEX (AMESBURY, ANDOVER, BOXFORD, GEORGETOWN, GROVELAND, HAVERHILL, LAWRENCE, MERRIMAC, METHUEN, NEWBURY, NEWBURYPORT, NORTH ANDOVER, ROWLEY, SALISBURY, WEST NEWBURY); MIDDLESEX (BEDFORD, BILLERICA, BOXBORO, BURLINGTON, CARLISLE, CHELMSFORD, DRACUT, DUNSTABLE LITTLETON, LOWELL, NORTH READING, TEWKSBURY, TYNGSBORO, WESTFORD, WILMINGTON))	$ 66.17	37.08

ELEC0103-004 09/01/2025

	Rates	Fringes
ELECTRICIAN (ESSEX (BEVERLY, DANVERS, ESSEX, GLOUCESTER, HAMILTON, IPSWICH, MANCHESTER, MARBLEHEAD, MIDDLETON, PEABODY, ROCKPORT, SALEM, TOPSFIELD, WENHAM))	$ 66.17	37.08

ELEC0103-005 09/01/2025

	Rates	Fringes
ELECTRICIAN (ESSEX (LYNN, LYNNFIELD, NAHANT, SAUGUS, SWAMPSCOTT); MIDDLESEX (ACTON, ARLINGTON, BELMONT, CAMBRIDGE, CONCORD, EVERETT, FRAMINGHAM, HOLLISTON, LEXINGTON, LINCOLN, MALDEN, MAYNARD, MEDFORD, MELROSE, NATICK, NEWTON, READING, SHERBORN, SOMERVILLE, STONEHAM, SUDBURY, WAKEFIELD, WALTHAM, WATERTOWN, WAYLAND, WESTON, WINCHESTER, WOBURN); NORFOLK (BELLINGHAM, BRAINTREE, BROOKLINE, CANTON, COHASSET, DEDHAM, DOVER, FOXBORO, FRANKLOIN, MEDFIELD, MEDWAY, MILLIS, MILTON, NEEDHAM, NORFOLK, NORWO	$ 66.17	37.08

ELEC0104-001 09/01/2024

	Rates	Fringes
LINE CONSTRUCTION: LINEMAN A. PAID HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; CHRISTMAS DAY AND COLUMBUS DAY, PROVIDED THE EMPLOYEE HAS BEEN EMPLOYED 5 WORKING DAYS PRIOR TO ANY ONE OF THE LISTED HOLIDAYS	$ 58.41	30.19

LINE CONSTRUCTION: GROUNDMAN A. PAID HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; CHRISTMAS DAY AND COLUMBUS DAY, PROVIDED THE EMPLOYEE HAS BEEN EMPLOYED 5 WORKING DAYS PRIOR TO ANY ONE OF THE LISTED HOLIDAYS.....$ 32.13 12.70

LINE CONSTRUCTION: EQUIPMENT OPERATOR A. PAID HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; CHRISTMAS DAY AND COLUMBUS DAY, PROVIDED THE EMPLOYEE HAS BEEN EMPLOYED 5 WORKING DAYS PRIOR TO ANY ONE OF THE LISTED HOLIDAYS.....$ 49.65 26.72

LINE CONSTRUCTION: CABLEMAN A. PAID HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; CHRISTMAS DAY AND COLUMBUS DAY, PROVIDED THE EMPLOYEE HAS BEEN EMPLOYED 5 WORKING DAYS PRIOR TO ANY ONE OF THE LISTED HOLIDAYS.....$ 58.41 30.19

ELEC0223-002 09/01/2024

	Rates	Fringes
ELECTRICIAN (BARNSTABLE, BRISTOL (EXCEPT ATTLEBORO, NORTH ATTLEBORO, SEEKONK); DUKES; NANTUCKET; PLYMOUTH (EXCEPT HINGHAM AND HULL TWPS); NORFOLK (AVON, HALBROOK, RANDOLPH, SLOUGHTON))	$ 50.02	31.05

ENGI0004-009 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATORS: GROUP 6 OILER (ON TRUCK CRANES AND GRADALLS) HOURLY PREMIUM FOR BOOM LENGTHS (INCLUDING JIB): OVER 150 FT. +2.18 OVER 185 FT. +3.84 OVER 210 FT. +5.39 OVER 250 FT. +8.16 OVER 295 FT. +11.29 OVER 350 FT. +13.14 FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON,S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY	$ 30.85	33.70
POWER EQUIPMENT OPERATORS: GROUP 5 OILER (OTHER THAN TRUCK CRANES AND GRADALLS) HOURLY PREMIUM FOR BOOM LENGTHS (INCLUDING JIB): OVER 150 FT. +2.18 OVER 185 FT. +3.84 OVER 210 FT. +5.39 OVER 250 FT. +8.16 OVER 295 FT. +11.29 OVER 350 FT. +13.14 FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON,S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY	$ 25.02	33.70
POWER EQUIPMENT OPERATORS: GROUP 4 ASSITANT ENGINEER (FIREMAN) HOURLY PREMIUM FOR BOOM LENGTHS (INCLUDING JIB): OVER 150 FT. +2.18 OVER 185 FT. +3.84 OVER 210 FT. +5.39 OVER 250 FT. +8.16 OVER 295 FT. +11.29 OVER 350 FT. +13.14 FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON,S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY	$ 46.52	33.70

POWER EQUIPMENT OPERATORS: GROUP 3 PUMPS (1-3 GROUPED); COMPRESSOR; WELDING MACHINES (1-3 GROUPED); GENERATOR; SIGHTING PLANT; HEATERS (POWER DRIVEN, 1- 5); SYPHON-PULSOMETER; CONCRETE MIXER; VALVES CONTROLLING PERMANENT PLANT AIR STEAM, CONVEYOR, WELLPOINT SYSTEM (OPERATING) HOURLY PREMIUM FOR BOOM LENGTHS (INCLUDING JIB): OVER 150 FT. +2.18 OVER 185 FT. +3.84 OVER 210 FT. +5.39 OVER 250 FT. +8.16 OVER 295 FT. +11.29 OVER 350 FT. +13.14 FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON,S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY.....$ 37.02 33.70

POWER EQUIPMENT OPERATORS: GROUP 2 SONIC OR VIBRATORY HAMMER; GRADER; SCRAPER; TANDEM SCRAPER; BULLDOZER; TRACTOR; MECHANIC - MAINTENANCE; YORK RAKE; MULCHING MACHINE; PAVING SCREED MACHINE;STATIONARY STEAM BOILER; PAVING CONCRETE FINISHING MACHINE; GROUT PUMP; PORTABLE STEAM BOILER; PORTABLE STEAM GENERATOR; ROLLER; SPREADER; ASPHALT PAVER; LOCOMOTIVES OR MACHINES USED IN PLACE THEREOF; TAMPER (SELF PROPELLED OR TRACTOR-DRAW); CAL TRACKS; BALLAST REGULATOR;RAIL ANCHOR MACHINE; SWITCH TAMPER; TIRE TRUCK HOURLY PREMIUM FOR BOOM LENGTHS (INCLUDING JIB): OVER 150 FT. +2.18 OVER 185 FT. +3.84 OVER 210 FT. +5.39 OVER 250 FT. +8.16 OVER 295 FT. +11.29 OVER 350 FT. +13.14 FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON,S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY.....$ 57.18 33.70

POWER EQUIPMENT OPERATORS: GROUP 1 POWER SHOVEL; CRANE; TRUCK CRANE; DERRICK; PILE DRIVER; TRENCHING MACHINE; MECHANICAL HOIST PAVEMENT BREAKER; CEMENT CONCRETE PAVER; DRAGLINE; HOISTING ENGINE; THREE DRUM MACHINE; PUMPCRETE MACHINE; LOADERS; SHOVEL DOZER; FRONT END LOADER; MUCKING MACHINE; SHAFT HOIST; STEAM ENGINE; BACKHOE; GRADALL; CABLE WAY; FORK LIFT; CHERRY PICKER; BORING MACHINE; ROTARY DRILL; POST HOLE HAMMER; POST HOLE DIGGER; ASPHALT PLANT ON JOB SITE; CONCRETE BATCHING AND/OR MIXING PLANT ON JOB SITE; CRUSHER PLANT ON JOB SITE; PAVING CONCRETE MIXER; TIMBER JACK HOURLY PREMIUM FOR BOOM LENGTHS (INCLUDING JIB): OVER 150 FT. +2.18 OVER 185 FT. +3.84 OVER 210 FT. +5.39 OVER 250 FT. +8.16 OVER 295 FT. +11.29 OVER 350 FT. +13.14 FOOTNOTE FOR POWER EQUIPMENT OPERATORS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON,S BIRTHDAY, LABOR DAY, MEMORIAL DAY, INDEPENDENCE DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS DAY.....$ 57.83 33.70

IRON0007-001 09/16/2025

	Rates	Fringes
IRONWORKER: (AREA 2)	$ 53.46	37.67
IRONWORKER: (AREA 1)	$ 57.87	37.67

IRON0007-010 09/16/2025

	Rates	Fringes
IRONWORKER (MIDDLESEX (ASHBY, ASHLAND, AYER, BOXBORO, HOLLISTON, HOPKINTON, HUDSON, MARLBORO, SHIRLEY, STOW, TOWNSEND); NORFOLK (MEDWAY))	$ 57.57	37.67

IRON0037-002 09/16/2025

	Rates	Fringes
IRONWORKER (BARNSTABLE; BRISTOL (ACUSHNET, ATTLEBORO, BERKLEY, DARTMOUTH, DIGHTON, FAIRHAVEN, FALL RIVER, FREETOWN, MANSFIELD, NEW BEDFORD, NORTH ATTLEBORO, NORTON, RAYNHAM, REHOBOTH, SEEKONK, SOMERSET, SWANSEA, TAUNTON, WESTPORT); DUKES; NANTUCKET; NORFOLK (BILLINGHAM, FRANKLIN, PLAINVILLE, WRENTHAM); PLYMOUTH (LAKEVILLE, MARION, MATTAPOISETT, MIDDLEBORO, ROCHESTER, WAREHAM))	$ 43.03	33.53

LABO0022-006 12/01/2024

	Rates	Fringes
LABORERS: GROUP 6- ASBESTOS ABATEMENT; TOXIC AND HAZARDOUS WASTE LABORERS (SUFFOLK COUNTY (BOSTON, CHELSEA, REVERE, WINTHROP, DEER & NUT ISLANDS); MIDDLESEX COUNTY (ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN ONLY); NORFOLK COUNTY (BROOKLINE, DEDHAM, AND MILTON ONLY))	$ 46.20	29.70
LABORERS: GROUP 5- FLAGGER (SUFFOLK COUNTY (BOSTON, CHELSEA, REVERE, WINTHROP, DEER & NUT ISLANDS); MIDDLESEX COUNTY (ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN ONLY); NORFOLK COUNTY (BROOKLINE, DEDHAM, AND MILTON ONLY))	$ 27.01	29.70
LABORERS: GROUP 4- BLASTER; POWDERMAN (SUFFOLK COUNTY (BOSTON, CHELSEA, REVERE, WINTHROP, DEER & NUT ISLANDS); MIDDLESEX COUNTY (ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN ONLY); NORFOLK COUNTY (BROOKLINE, DEDHAM, AND MILTON ONLY))	$ 46.20	29.70
LABORERS: GROUP 3- AIR TRACK OPERATOR; BLOCK PAVER; RAMMER; CURB SETTER (SUFFOLK COUNTY (BOSTON, CHELSEA, REVERE, WINTHROP, DEER & NUT ISLANDS); MIDDLESEX COUNTY (ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN ONLY); NORFOLK COUNTY (BROOKLINE, DEDHAM, AND MILTON ONLY))	$ 46.20	29.70
LABORERS: GROUP 2- ASPHALT RAKER; FENCE AND GUARD RAIL ERECTOR; LASER BEAM OPERATOR; MASON TENDER; PIPELAYER; PNEUMATIC DRILL OPERATOR; PNEUMATIC TOOL OPERATOR; WAGON DRILL OPERATOR (SUFFOLK COUNTY (BOSTON, CHELSEA, REVERE, WINTHROP, DEER & NUT ISLANDS); MIDDLESEX COUNTY (ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN ONLY); NORFOLK COUNTY (BROOKLINE, DEDHAM, AND MILTON ONLY))	$ 46.20	29.70

LABORERS: GROUP 1- LABORERS; CARPENTER TENDERS;
CEMENT FINISHER TENDERS (SUFFOLK COUNTY (BOSTON,
CHELSEA, REVERE, WINTHROP, DEER & NUT ISLANDS);
MIDDLESEX COUNTY (ARLINGTON, BELMONT, BURLINGTON,
CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE,
READING, SOMERVILLE, STONEHAM, WAKEFIELD,
WINCHESTER, WINTHROP AND WOBURN ONLY); NORFOLK
COUNTY (BROOKLINE, DEDHAM, AND MILTON ONLY)).....$ 46.20 29.70

LABO0022-012 12/01/2024

	Rates	Fringes
LABORERS: GROUP 6- ASBESTOS ABATEMENT; TOXIC AND HAZARDOUS WASTE LABORERS (COUNTIES OF BARNSTABLE; BRISTOL; DUKES; ESSEX; NANTUCKET; PLYMOUTH; MIDDLESEX (WITH THE EXCEPTION OF ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN); NORFOLK (WITH THE EXCEPTION OF BROOKLINE, DEDHAM, AND MILTON))	$ 46.10	29.70
LABORERS: GROUP 5- FLAGGER (COUNTIES OF BARNSTABLE; BRISTOL; DUKES; ESSEX; NANTUCKET; PLYMOUTH; MIDDLESEX (WITH THE EXCEPTION OF ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN); NORFOLK (WITH THE EXCEPTION OF BROOKLINE, DEDHAM, AND MILTON))	$ 27.01	29.70
LABORERS: GROUP 4- BLASTER; POWDERMAN (COUNTIES OF BARNSTABLE; BRISTOL; DUKES; ESSEX; NANTUCKET; PLYMOUTH; MIDDLESEX (WITH THE EXCEPTION OF ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN); NORFOLK (WITH THE EXCEPTION OF BROOKLINE, DEDHAM, AND MILTON))	$ 38.95	29.70
LABORERS: GROUP 3- AIR TRACK OPERATOR; BLOCK PAVER; RAMMER; CURB SETTER; HYDRAULIC & SIMILAR SELF POWERE DRILLS (COUNTIES OF BARNSTABLE; BRISTOL; DUKES; ESSEX; NANTUCKET; PLYMOUTH; MIDDLESEX (WITH THE EXCEPTION OF ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN); NORFOLK (WITH THE EXCEPTION OF BROOKLINE, DEDHAM, AND MILTON))	$ 38.95	29.70
LABORERS: GROUP 2- ASPHALT RAKER; FENCE AND GUARD RAIL ERECTOR; LASER BEAM OPERATOR; MASON TENDER; PIPELAYER; PNEUMATIC DRILL OPERATOR; PNEUMATIC TOOL OPERATOR; WAGON DRILLPERATOR (COUNTIES OF BARNSTABLE; BRISTOL; DUKES; ESSEX; NANTUCKET; PLYMOUTH; MIDDLESEX (WITH THE EXCEPTION OF ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN); NORFOLK (WITH THE EXCEPTION OF BROOKLINE, DEDHAM, AND MILTON))	$ 38.95	29.70
LABORERS: GROUP 1- LABORERS; CARPENTER TENDERS; CEMENT FINISHER TENDERS (COUNTIES OF BARNSTABLE; BRISTOL; DUKES; ESSEX; NANTUCKET; PLYMOUTH; MIDDLESEX (WITH THE EXCEPTION OF ARLINGTON, BELMONT, BURLINGTON, CAMBRIDGE, EVERETT, MALDEN, MELROSE, READING, SOMERVILLE, STONEHAM, WAKEFIELD, WINCHESTER, WINTHROP AND WOBURN); NORFOLK (WITH THE EXCEPTION OF BROOKLINE, DEDHAM, AND MILTON))	$ 38.95	29.70

LABO0022-013 12/01/2024

	Rates	Fringes
LABORERS:(TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR), GROUP 6 HAZARDOUS WASTE WORK WITHIN THE ""HOT"" ZONE. (A PREMIUM OF TWO DOLLARS $2.00 PER HOUR OVER THE BASIC WAGE RATE. FOOTNOTE FOR LABORERS: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, PATRIOT'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY, AND CHRISTMAS DAY	$ 58.43	29.70
LABORERS: LABORERS; TOP MAN ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 41.18	29.70
LABORERS: LABORERS; TOP MAN ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 46.20	29.70
LABORERS: LABORER ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 41.18	29.70
LABORERS: LABORER ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 46.20	29.70
LABORERS: GROUP 5 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 47.48	29.70
LABORERS: GROUP 5 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 52.50	29.70
LABORERS: GROUP 5 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 53.41	29.70
LABORERS: GROUP 5 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 58.43	29.70
LABORERS: GROUP 4 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 45.48	29.70
LABORERS: GROUP 4 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 50.50	29.70
LABORERS: GROUP 4 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 53.41	29.70
LABORERS: GROUP 4 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 58.43	29.70
LABORERS: GROUP 3 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 45.48	29.70
LABORERS: GROUP 3 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 50.50	29.70
LABORERS: GROUP 3 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 53.41	29.70
LABORERS: GROUP 3 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 58.43	29.70
LABORERS: GROUP 2 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 45.48	29.70
LABORERS: GROUP 2 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 50.50	29.70
LABORERS: GROUP 2 (CLEANING CONCRETE AND CAULKING TUNNEL (Both New & Existing))	$ 45.48	29.70
LABORERS: GROUP 2 (CLEANING CONCRETE AND CAULKING TUNNEL (Both New & Existing))	$ 50.50	29.70
LABORERS: GROUP 2 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 53.41	29.70
LABORERS: GROUP 2 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 58.43	29.70
LABORERS: GROUP 2 ((FREE AIR OPERATION): SHIELD DRIVEN AND LINER PLATE IN FREE AIR))	$ 50.50	29.70
LABORERS: GROUP 1 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 42.93	29.70
LABORERS: GROUP 1 (ROCK SHAFT, CONCRETE LINING OF SAME AND TUNNEL IN FREE AIR)	$ 47.95	29.70
LABORERS: GROUP 1 (CLEANING CONCRETE AND CAULKING TUNNEL (Both New & Existing))	$ 45.48	29.70
LABORERS: GROUP 1 (CLEANING CONCRETE AND CAULKING TUNNEL (Both New & Existing))	$ 50.50	29.70

LABORERS: GROUP 1 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 42.93	29.70
LABORERS: GROUP 1 ((TUNNELS, CAISSON & CYLINDER WORK IN COMPRESSED AIR))	$ 47.95	29.70
LABORERS: GROUP 1 ((FREE AIR OPERATION): SHIELD DRIVEN AND LINER PLATE IN FREE AIR))	$ 50.50	29.70
LABORERS: DRILLER ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 42.58	29.70
LABORERS: DRILLER ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 50.20	29.70
LABORERS: BOTTOM MAN ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 42.33	29.70
LABORERS: BOTTOM MAN ((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 47.35	29.70
((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 41.18	29.70
((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 42.33	29.70
((OPEN AIR CASSONS, UNDERPINNING AND TEST BORING INDUSTRIES):)	$ 42.58	29.70

LABO1421-001 12/02/2024

	Rates	Fringes
LABORERS:, WRECKING: GROUP 6 ASBESTOS, LEAD PAINT, TOXIC AND HAZARDOUS WASTE	$ 46.25	29.70
LABORERS:, WRECKING: GROUP 5 YARDMAN, BURNERS, SAWYERS	$ 45.35	29.70
LABORERS:, WRECKING: GROUP 4 YARDMAN (SALVAGE YARD ONLY)	$ 42.25	29.70
LABORERS:, WRECKING: GROUP 3 SMALL BACKHOES, LOADERS ON TRACKS, BOBCAT TYPE LOADERS, HYDRAULIC ""BROCK"" TYPE HAMMER OPERATORS, CONCRETE CUTTING SAWS	$ 47.25	29.70
LABORERS:, WRECKING: GROUP 2 BURNERS, JACKHAMMERS	$ 47.00	29.70
LABORERS:, WRECKING: GROUP 1 ADZEMAN, WRECKING LABORER	$ 46.25	29.70

PAIN0035-001 07/01/2024

	Rates	Fringes
PAINTER BRIDGE (BARNSTABLE BRISTOL; DUKES; ESSEX; NANTUCKET; PLYMOUTH (Remainder of NORFOLK; MIDDLESEX AND SUFFOLK COUNTIES))	$ 56.76	36.00

PAIN0035-015 07/01/2024

	Rates	Fringes
PAINTER SPAY NEW CONSTRUCTION: SANDBLAST	$ 47.66	36.00
PAINTER REPAINT: SPRAY, SANDBLAST	$ 45.72	36.00
PAINTER BRUSH, TAPER (Repaint)	$ 44.32	36.00
PAINTER BRUSH, TAPER (NEw Construction)	$ 46.26	36.00
PAINTER BRIDGE (MIDDLESEX (Cambridge, Everett, Malden, Medford, Sommerville) SUFFOLK COUNTY (Boston, Chelsea) NORFOLK COUNTY (Brookline))	$ 56.76	36.00

PLAS0534-001 07/01/2024

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER (ESSEX; MIDDLESEX; NORFOLK AND SUFFOLK COUNTY)	$ 49.19	40.86

PLUM0004-001 09/01/2025

	Rates	Fringes
PLUMBERS AND PIPEFITTERS (MIDDLESEX (ASHBY, AYER-WEST OF GREENVILLE BRANCH OF BOSTON AND MAINE RAILROAD, FT. DEVENS, GROTON, SHIRLEY, TOWNSEND))...	$ 55.00	31.57

PLUM0012-001 03/02/2025

	Rates	Fringes
PLUMBER (ESSEX (AMES, ANDOVER, BEVERLY, BOXFORD, BYFIELD, DANVERS, ESSEX, GEORGETOWN, GLOUCESTER, GROVELAND, HAMILTON, HAVERHILL, IPSWICH, LAWRENCE,MANCHESTER, MARBLEHEAD, MERRIMAC, METHUEM, MIDDLETON, NEWBURY, NEWBURYPORT, NORTH ANDOVER, PEABODY, ROCKPORT, ROWLEY, SALEM, SALISBURY, TOPSFIEILD, WENHAM, WEST NEWBURY)).....	$ 69.84	36.43

PLUM0012-003 03/02/2025

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER (ESSEX (AMES, ANDOVER, BEVERLY, BOXFORD, BYFIELD, DANVERS, ESSEX, GEORGETOWN, GLOUCESTER, GROVELAND, HAMILTON, HAVERHILL, IPSWICH, LAWRENCE, MANCHESTER, MARBLEHEAD, MERRIMAC, METHUEN, MIDDLETON, NEWBURY, NEWBURYPORT, NORTH ANDOVER, PEABODY, ROCKPORT, ROWLEY, SALEM, SALISBURY, TOPSFIELD, WENHAM, WEST NEWBURY)).....	$ 69.84	36.43

PLUM0012-006 03/02/2025

	Rates	Fringes
PLUMBER (ESSEX (LYNN, LYNNFIELD, NAHANT, SAUGUS, AND SWAMPSCOTT); MIDDLESEX (ACTON, ARLINGTON, ASHLAND, AYER - EXCEPT W. OF GREENVILLE BRANCH OF BOSTON & MAINE RR, BEDFORD, BELMONT, BILLERICA, BOXBORO, BURLINGTON, CAMBRIDGE, CARLISLE, CHELMSFORD, CONCORD, DRACUT, DUNSTABLE, EVERETT, FRAMINGHAM, HUDSON, HOLLISTON, HOPKINTON, LEXINGTON, LINCOLN, LITTLETON, LOWELL, MALDEN, MARLBORO, MAYNARD, MEDFORD, MELROSE, NATICK, NEWTON, NORTH READING, PEPPERELL, READING, SHERBORN, SOMERVILLE, STONEHAM, S.....	$ 69.84	36.43

PLUM0051-005 08/26/2024

	Rates	Fringes
PLUMBERS AND PIPEFITTERS (BARNSTABLE; BRISTOL; DUKES; NANTUCKET; NORFOLK (AVON, HOLBROOK, RANDOLPH, STOUGHTON) PLYMOUTH(REMAINDER OF COUNTY)).	$ 52.49	33.60

PLUM0537-001 03/01/2025

	Rates	Fringes
PIPEFITTER (MIDDLESEX (ARLINGTON, CAMBRIDGE, EVERETT, MALDEN, MEDFORD, MELROSE, READING, WAKEFIELD, WINCHESTER AND WOBURN); NORFOLK (BELLINGHAM, BRAINTREE, BROOKLINE, CANTON CASHASSET, DEDHAM, FOXBORO, FRANKLIN, MILLIS, MILTON, SHARON, WALPOLE, WESTWOOD, AND WRENTHAN); PLYMOUTH (HINGHAM, HULL, SCITUATE); ESSEX (AMES, ANDOVER, BEVERLY, BOXFORD, BYFIELD, DANVERS, ESSEX, GEORGETOWN, GLOUCESTER, GROVELAND, HAMILTON, HAVERHILL, IPSWICH, LAWRENCE,LYNN, LYNNFIELD, MANCHESTER, MARBLEHEAD, MERRIMAC, MET.....	$ 66.58	39.22

TEAM0379-001 06/01/2025

	Rates	Fringes
TRUCK DRIVERS: GROUP 7 TRAILERS FOR EARTH MOVING EQUIPMENT (DOUBLE HOOKUP) POWER TRUCKS $.25 DIFFERENTIAL BY AXLE TUNNEL WORK (UNDERGROUND ONLY) $.40 DIFFERENTIAL BY AXLE HAZARDOUS MATERIALS (IN HOT ZONE ONLY) $2.00 PREMIUM FOOTNOTES: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. PAID VACATION: EMPLOYEES WITH 4 MONTHS TO 1 YEAR OF SERVICE RECEIVE 1/2 DAY'S PAY PER MONTH; 1 WEEK VACATION FOR 1 - 5 YEARS OF SERVICE; 2 WEEKS VACATION FOR 5 - 10 YEARS OF SERVICE; AND 3 WEEKS VACATION FOR MORE THAN 10 YEARS OF SERVICE.....	$ 41.82	37.35
TRUCK DRIVERS: GROUP 6 SPECIALIZED EARTH MOVING EQUIPMENT OVER 35 TONS POWER TRUCKS $.25 DIFFERENTIAL BY AXLE TUNNEL WORK (UNDERGROUND ONLY) $.40 DIFFERENTIAL BY AXLE HAZARDOUS MATERIALS (IN HOT ZONE ONLY) $2.00 PREMIUM FOOTNOTES: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. PAID VACATION: EMPLOYEES WITH 4 MONTHS TO 1 YEAR OF SERVICE RECEIVE 1/2 DAY'S PAY PER MONTH; 1 WEEK VACATION FOR 1 - 5 YEARS OF SERVICE; 2 WEEKS VACATION FOR 5 - 10 YEARS OF SERVICE; AND 3 WEEKS VACATION FOR MORE THAN 10 YEARS OF SERVICE.....	$ 41.53	37.35
TRUCK DRIVERS: GROUP 5 SPECIALIZED EARTH MOVING EQUIPMENT UNDER 35 TONS OTHER THAN CONVENTIONAL TYPE TRUCKS; LOW BED; VACHUAL; MECHANICS, PAVING RESTORATION EQUIPMENT POWER TRUCKS $.25 DIFFERENTIAL BY AXLE TUNNEL WORK (UNDERGROUND ONLY) $.40 DIFFERENTIAL BY AXLE HAZARDOUS MATERIALS (IN HOT ZONE ONLY) $2.00 PREMIUM FOOTNOTES: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. PAID VACATION: EMPLOYEES WITH 4 MONTHS TO 1 YEAR OF SERVICE RECEIVE 1/2 DAY'S PAY PER MONTH; 1 WEEK VACATION FOR 1 - 5 YEARS OF SERVICE; 2 WEEKS VACATION FOR 5 - 10 YEARS OF SERVICE; AND 3 WEEKS VACATION FOR MORE THAN 10 YEARS OF SERVICE.....	$ 41.24	37.35
TRUCK DRIVERS: GROUP 4 FOUR AND FIVE AXLE EQUIPMENT POWER TRUCKS $.25 DIFFERENTIAL BY AXLE TUNNEL WORK (UNDERGROUND ONLY) $.40 DIFFERENTIAL BY AXLE HAZARDOUS MATERIALS (IN HOT ZONE ONLY) $2.00 PREMIUM FOOTNOTES: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. PAID VACATION: EMPLOYEES WITH 4 MONTHS TO 1 YEAR OF SERVICE RECEIVE 1/2 DAY'S PAY PER MONTH; 1 WEEK VACATION FOR 1 - 5 YEARS OF SERVICE; 2 WEEKS VACATION FOR 5 - 10 YEARS OF SERVICE; AND 3 WEEKS VACATION FOR MORE THAN 10 YEARS OF SERVICE.....	$ 41.14	37.35

TRUCK DRIVERS: GROUP 3 THREE AXLE EQUIPMENT AND TIREMAN POWER TRUCKS $.25 DIFFERENTIAL BY AXLE TUNNEL WORK (UNDERGROUND ONLY) $.40 DIFFERENTIAL BY AXLE HAZARDOUS MATERIALS (IN HOT ZONE ONLY) $2.00 PREMIUM FOOTNOTES: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. PAID VACATION: EMPLOYEES WITH 4 MONTHS TO 1 YEAR OF SERVICE RECEIVE 1/2 DAY'S PAY PER MONTH; 1 WEEK VACATION FOR 1 - 5 YEARS OF SERVICE; 2 WEEKS VACATION FOR 5 - 10 YEARS OF SERVICE; AND 3 WEEKS VACATION FOR MORE THAN 10 YEARS OF SERVICE.....$ 41.02 37.35

TRUCK DRIVERS: GROUP 2 TWO AXLE EQUIPMENT; & FORKLIFT OPERATOR POWER TRUCKS $.25 DIFFERENTIAL BY AXLE TUNNEL WORK (UNDERGROUND ONLY) $.40 DIFFERENTIAL BY AXLE HAZARDOUS MATERIALS (IN HOT ZONE ONLY) $2.00 PREMIUM FOOTNOTES: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. PAID VACATION: EMPLOYEES WITH 4 MONTHS TO 1 YEAR OF SERVICE RECEIVE 1/2 DAY'S PAY PER MONTH; 1 WEEK VACATION FOR 1 - 5 YEARS OF SERVICE; 2 WEEKS VACATION FOR 5 - 10 YEARS OF SERVICE; AND 3 WEEKS VACATION FOR MORE THAN 10 YEARS OF SERVICE.....$ 40.95 37.35

TRUCK DRIVERS: GROUP 1 STATION WAGONS; PANEL TRUCKS; AND PICKUP TRUCKS POWER TRUCKS $.25 DIFFERENTIAL BY AXLE TUNNEL WORK (UNDERGROUND ONLY) $.40 DIFFERENTIAL BY AXLE HAZARDOUS MATERIALS (IN HOT ZONE ONLY) $2.00 PREMIUM FOOTNOTES: A. PAID HOLIDAYS: NEW YEAR'S DAY, WASHINGTON'S BIRTHDAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, PATRIOT'S DAY, COLUMBUS DAY, VETERAN'S DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. PAID VACATION: EMPLOYEES WITH 4 MONTHS TO 1 YEAR OF SERVICE RECEIVE 1/2 DAY'S PAY PER MONTH; 1 WEEK VACATION FOR 1 - 5 YEARS OF SERVICE; 2 WEEKS VACATION FOR 5 - 10 YEARS OF SERVICE; AND 3 WEEKS VACATION FOR MORE THAN 10 YEARS OF SERVICE.....$ 40.78 37.35

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU" "UAVG" "SA" or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the
classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were
adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:
   a) a survey underlying a wage determination
   b) an existing published wage determination
   c) an initial WHD letter setting forth a position on a wage determination matter
   d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

DOCUMENT A00801

SPECIAL PROVISIONS

DIGHTON
Federal Aid Project No. HPP/STP(BR-OFF)-003S(903)X
Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove

Labor participation goals for this Project shall be 15.3% for minorities and 6.9% for women for each job category. The goals are applicable to both Contractor's and Subcontractor's on-site construction workforce. Refer to Document 00820 for details.

SCOPE OF WORK

All work under this Contract shall be done in conformance with the *2026 Standard Specifications for Highways and Bridges, the Supplemental Specifications* contained in this book, the *Construction Standard Details* in effect as of July 2026, the *1990 Standard Drawings for Signs and Supports*, the 2015 *Overhead Signal Structure and Foundation Standard Drawings*, the *11th Edition of the Manual on Uniform Traffic Control Devices (MUTCD)* and the *January 2026 Massachusetts Amendments to the MUTCD*, *the 1968 Standard Drawings for Traffic Signals and Highway Lighting*, the latest edition of The *American Standard for Nursery Stock*, the Plans and these Special Provisions.

The work under this Contract includes the replacement of Bridge No. D-08-002, Pleasant Street over Muddy Cove Brook.

The work includes removing bridge superstructure; removing and disposing of the existing bridge abutments, and piles; installing permanent sheeting; installing steel H-piles, abutments, wingwalls, NEXT F bridge superstructure, approach slabs, and highway guardrail transitions; and installing metal bridge rail.

The work also includes temporary water control, excavation, riprap slope protection, full depth roadway construction, sidewalk construction, milling and overlay, pavement markings, and utility relocation, the provisions of safety controls and signing for construction operations, and other incidental items included in the contract documents.

CONTRACTOR QUESTIONS AND ADDENDUM ACKNOWLEDGEMENTS

Prospective bidders are required to submit all questions to the Construction Contracts Engineer by 3:00 P.M. on the Tuesday of the previous week before the scheduled bid opening date. Any questions received after this time will not be considered for review by the Department.

Contractors should email questions and addendum acknowledgements to the following email address massdotspecifications@dot.state.ma.us The MassDOT proposal number and municipality is to be placed in the subject line.

SUBSECTION 7.05 INSURANCE REQUIREMENTS

The insurance requirements set forth in this subsection are in addition to the requirements of the Standard Specifications.

7.05.B: Public Liability Insurance 4.

Asbestos Liability Insurance shall be obtained for this project.

NONCONFORMING COMPRESSIVE STRENGTH OF CEMENT CONCRETE

Concrete with compressive strength test results failing to attain the limits specified in Table 901.64-3 of 901.64.B: Acceptance Testing shall be evaluated for structural adequacy and serviceability at the Contractors' expense. The Department will review all production records, the concrete test records, petrographic analysis report, field notes, and the placement records for the concrete in question. If the Engineer determines the material is found to be adequate to remain in place, payment shall be adjusted in accordance with the following formula:

$$P = \frac{2(fc - f'c)(UP)(Q)}{f'c}$$

Where:

P = pay adjustment for substandard concrete
$f'c$ = specified minimum compressive strength at 28 days
fc = substandard concrete cylinder compressive strength at 56 days
Q = quantity of concrete represented by the acceptance cylinders tested
UP = unit contract price or the lump sum breakdown price per cubic yard for the class of concrete involved complete in place

EQUIVALENT SINGLE AXLE LOADS (ESALS)

The estimated traffic level to be used for SUPERPAVE HMA mixture designs for this contract, expressed in Equivalent Single Axle Loads (ESALs) for the design travel lane over a 20-year period, is 0.5 million 18-kip (80-kn) ESALs.

NOTIFICATION OF FUNDING SOURCES FOR WORK TO BE PAID BY OTHERS

This Contract has an agreement with the Town of Dighton; whereas when the construction costs for the contract scope exceed the total participating contract bid price by more than ten percent (10%), the Town shall be responsible for the amount over 110% of the total participating contract bid price.

WORK SCHEDULE AND RESTRICTIONS

(Supplementing Subsections 7.09 and 8.02)

The work schedule shall conform to the relevant provisions of Subsection 7.09 of the standard specifications and be subject to the written approval by the Engineer. All on road work under this contract shall be conducted between the hours of 7:00 AM and 4:00 PM unless otherwise authorized by the Engineer. Night work for paving operations may be allowed subject to approval by the Town.

One lane of travel in each direction shall be maintained at the end of the work shift.

The Prime Contractor and all Subcontractors shall be restricted to the same work hours. The Contractor shall request other work hours or additional work hours in writing and submit the request to the Engineer for approval at least ten days prior to the requested start date.

Setup and removal of all equipment and materials for work under this contract, including the work and materials required to set up and dismantle the work zones, shall only be done during the prescribed work hours outlined in this section. Roadways shall be free of the Contractor's personnel and equipment during the restricted hours.

HOLIDAY WORK RESTRICTIONS

(Supplementing Subsection 7.09)

The District Highway Director (DHD) may authorize work to continue during these specified time periods if it is determined by the District that the work will not negatively impact the traveling public. DHD may allow work in those areas on a case by case basis and where work is behind barrier and will not impact traffic

Below are the holiday work restrictions:

New Years Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Martin Luther King's Birthday (Federal Holiday)
No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

President's Day (Federal Holiday)
No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

Evacuation Day (Suffolk County State Holiday)
No work restrictions due to traffic concerns.

HOLIDAY WORK RESTRICTIONS (Continued)

Patriot's Day (State Holiday)
Work restrictions will be in place for Districts 3 and 6 along the entire Boston Marathon route and any other locations that the DHD in those districts determine are warranted so as to not to impact the marathon. All other districts work restrictions will be as per DHD.

Mother's Day
No work on Western Turnpike and Metropolitan Highway System from 5:00 AM on the Friday before, until the normal start of business on the following day.

Memorial Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

Bunker Hill Day (Suffolk County State Holiday)
No work restrictions due to traffic concerns.

Juneteenth
No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

Independence Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Labor Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

Columbus Day (Federal Holiday)
No work on major arterials from 5:00 AM on the Friday before, until the normal start of business on the following day

Veterans' Day (Federal Holiday)
No work restrictions due to traffic concerns.

Thanksgiving Day (Federal Holiday)
No work on major arterials from 5:00 AM two days before until the normal start of business on the following Monday.

Christmas Day (Federal Holiday)
No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day.

SUBSECTION 8.02 SCHEDULE OF OPERATIONS

Replace this subsection with the following:

An integrated cost and schedule controls program shall be implemented by the Contractor to track and document the progress of the Work from Notice to Proceed (NTP) through the Contractor Field Completion (CFC) Milestone. The Contractor's schedules will be used by the Engineer to monitor project progress, plan the level-of-effort required by the Department's work force and consultants and as a critical decision-making tool. Accordingly, the Contractor shall ensure that it complies fully with the requirements specified herein and that its schedules are both accurate and updated as required by the specification throughout the life of the project. Detailed requirements are provided in Division II, Section 722 Construction Scheduling.

TRUCK SAFETY DEVICES

(Supplementing Subsection 7.04: Motor Vehicles)

All motor vehicles subject to Section 7 of Chapter 90 to be operated under this Contract shall be equipped with safety devices as provided therein and in 540 CMR 4.00.

By December 31, 2025, the Contractor shall certify to the Registry of Motor Vehicles, in a manner prescribed by the Registrar, that all applicable vehicles are equipped with Lateral Protective Devices, Convex Mirrors, Cross Over Mirror(s) and Back Up Cameras in accordance with the requirements of 540 CMR 4.00.

The Contractor shall provide evidence satisfactory to the Department to demonstrate compliance with the above certification requirement for all applicable vehicles operated under this Contract by the Contractor and its subcontractors and vendors in a manner set forth by the Department. Thereafter, the Contractor shall have an affirmative obligation to continue to provide such evidence of compliance on an ongoing basis and no later than 7 days after certification with the Registry of Motor Vehicles of any additional vehicles operated under this Contract by the Contractor and its subcontractors and vendors.

Non-compliance with respect to a vehicle that is subject to 540 CMR 4.00 may subject the Contractor to statutory fines as established in M.G.L. c. 90, § 7 and/or contractual remedies up to and including termination of the Contract.

SUBSECTION 8.14 UTILITY COORDINATION, DOCUMENTATION, AND MONITORING RESPONSIBILITIES

A. GENERAL

In accordance with the provisions of Section 8.00 Prosecution and Progress, utility coordination is a critical aspect to this Contract. This section defines the responsibility of the Contractor and MassDOT, with regard to the initial utility relocation plan and changes that occur as the prosecution of the Work progresses. The Engineer, with assistance from the Contractor shall coordinate with Utility companies that are impacted by the Contractor's operations. To support this effort, the Contractor shall provide routine and accurate schedule updates, provide notification of delays, and provide documentation of the steps taken to resolve any conflicts for the temporary and/or permanent relocations of the impacted utilities. The Contractor shall provide copies to the Engineer of the Contractor communication with the Utility companies, including but not limited to:

- Providing advanced notice, for all utility-related meetings initiated by the Contractor.
- Providing meeting minutes for all utility-related meetings that the Contractor attends.
- Providing all test pit records.
- Request for Early Utility work requirements of this section (see below).
- Notification letters for any proposed changes to Utility start dates and/or sequencing.
- Written notification to the Engineer of all apparent utility delays within seven (7) Calendar Days after a recognized delay to actual work in the field – either caused by a Utility or the Contractor.
- Any communication, initiated by the Contractor, associated with additional Right-of-Way needs in support of utility work.
- Submission of completed Utility Completion Forms.

B. PROJECT UTILITY COORDINATION (PUC) FORM

The utility schedule and sequence information provided in the Project Utility Coordination Form (if applicable) is the best available information at the time of the bid and has been considered in setting the contract duration. The Contractor shall use all of this information in developing the bid price and the Baseline Schedule Submission, inclusive of the individual utility durations sequencing requirements, and any work that has been noted as potentially concurrent utility installations.

C. INITIATION OF UTILITY WORK

The Engineer will issue all initial notice-to-proceed dates to each Utility company based on either the:

1) Contractor's accepted Baseline Schedule
2) An approved Early Utility Request in the form of an Early Utility sub-net schedule (in accordance with the requirements of this Subsection)
3) An approved Proposal Schedule

C.1 - BASELINE SCHEDULE – UTILITY BASIS

The Contractor shall provide a Baseline Schedule submission in accordance with the requirements of Subsection 8.02 and inclusive of all of the information provided in the PUC Form that has been issued in the Contract documents. This is to include the utility durations, sequencing of work, allowable concurrent work, and all applicable considerations that have been depicted on the PUC Form.

SUBSECTION 8.14 (Continued)

C.2 – EARLY UTILITY REQUEST – (aka SUBNET SCHEDULE) PRIOR TO THE BASELINE
All early utility work is defined as any anticipated/required utility relocations that need to occur prior to the Baseline Schedule acceptance. In all cases of proposed early utility relocation, the Contractor shall present all known information at the pre-construction conference in the form of a 'sub-net' schedule showing when each early utility activity needs to be issued a notice-to-proceed. The Contractor shall provide advance notification of this intent to request early utility work in writing at or prior to the Pre-Construction meeting. Prior to officially requesting approval for early utility work, the Contractor shall also coordinate with MassDOT and all utility companies (private, state or municipal) which may be impacted by the Contract. If this request is acceptable to the Utilities and to MassDOT, the Engineer will issue a notice-to-proceed to the affected Utilities, based on these accepted dates.

C.3 – PROPOSAL SCHEDULE - CHANGES TO THE PUC FORM
If the Contractor intends to submit a schedule (in accordance with MassDOT Standard Specifications, Division I, Subsection 8.02) that contains durations or sequencing that vary from those provided in the Project Utility Coordination (PUC) Form, the Contactor must submit this as an intended change, in the form of a Proposal Schedule and in accordance with MassDOT Standard Specifications, Division I, Subsection 8.02. These proposed changes are subject to the approval of the Engineer and the impacted utilities, in the form of this Proposal Schedule and a proposed revision to the PUC form. The Contractor shall not proceed with any changes of this type without written authorization from the Engineer, that references the approved Proposal Schedule and PUC form changes. The submission of the Baseline Schedule should not include any of these types of proposed utility changes and should not delay the submission of the Baseline Schedule. As a prerequisite to the Proposal Schedule submission, and in advance of the utility notification(s) period, the Contractor shall coordinate the proposed utility changes with the Engineer and the utility companies, to develop a mutually agreed upon schedule, prior to the start of construction.

D. UTILITY DELAYS
The Contractor shall notify the Engineer upon becoming aware that a Utility owner is not advancing the work in accordance with the approved utility schedule. Such notice shall be provided to the Engineer no later than seven (7) calendar days after the occurrence of the event that the Contractor believes to be a utility delay. After such notice, the Engineer and the Contractor shall continue to diligently seek the Utility Owner's cooperation in performing their scope of Work.

In order to demonstrate that a critical path delay has been caused by a third-party Utility, the Contractor must demonstrate, through the requirements of the monthly Progress Schedule submissions and the supporting contract records associated with Subsection 8.02, 8.10 and 8.14, that the delays were beyond the control of the Contractor.

SUBSECTION 8.14 (Continued)

All documentation provided in this section is subject to the review and verification of the Engineer and, if required, the Utility Owner. In accordance with MassDOT Specifications, Division I, Subsection 8.10, a Time Extension will be granted for a delay caused by a Utility, only if the actual duration of the utility work is in excess of that shown on the Project Utility Coordination Form, and only if;

1) proper Notification of Delay was provided to MassDOT in accordance with the time requirements that are specified in this Section
2) the utility delay is a critical path impact to the Baseline Schedule (or most recently approved Progress Schedule)

E. LOCATION OF UTILITIES

The locations of existing utilities are shown on the Contract drawings as an approximation only. The Contractor shall perform a pre-construction utility survey, including any required test pits, to determine the location of all known utilities no later than thirty (30) calendar days before commencing physical site work in the affected area.

F. POST UTILITY SURVEY – NOTIFICATION

Following completion of a utility survey of existing locations, the Contractor will be responsible to notify the Engineer of any known conflicts associated with the actual location of utilities prior to the start of the work. The Engineer and the Contractor will coordinate with any utility whose assets are to be affected by the Work of this Contract. A partial list of utility contact information is provided in the Project Utility Coordination Form.

G. MEETINGS AND COOPERATION WITH UTILITY OWNERS

The Contractor shall notify the Engineer in advance of any meeting they initiate with a Utility Owner's representative to allow MassDOT to participate in the meeting if needed.

Prior to the Pre-Construction Meeting, the Contractor should meet with all Utility Owners who will be required to perform utility relocations within the first 6 months of the project, to update the affected utilities of the Project Utility Coordination Form and all other applicable Contract requirements that impact the Utilities. The Contractor shall copy the Engineer on any correspondence between the Utility Owner and the Contractor.

H. FORCE ACCOUNT / UTILITY MONITORING REQUIREMENTS

The Engineer will be responsible for recording daily Utility work force reports. The start, suspension, re-start, and completion dates of each of the Utilities, within each phase of the utility relocation work, will be monitored and agreed to by the Engineer and the Contractor as the work progresses.

I. ACCESS AND INSPECTION

The Contractor shall be responsible for allowing Utility owners access to their own utilities to perform the relocations and/or inspections. The Contractor shall schedule their work accordingly so as not to delay or prevent each utility from maintaining their relocation schedule.

COMPLIANCE WITH THE NATIONAL DEFENSE AUTHORIZATION ACT

(Supplementing Subsection 7.01)

On all projects, the "Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment" Regulation (2 CFR 200.216) prohibits the Contractor from using or furnishing the following telecommunications equipment or services:

- Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- Telecommunications or video surveillance services provided by such entities or using such equipment.
- Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

This prohibition applies to all products manufactured by the aforementioned companies, including any individual components or parts.

By submitting a bid on a project, the Contractor certifies that all work will be in compliance with the terms of 2 CFR 200.216. The Contractor shall submit a COC indicating compliance with the above provisions for all telecommunications equipment or services included in the Contract.

Payment for the item in which the materials are incorporated may be withheld until these COCs are received. Any cost involved in furnishing the certificate(s) shall be borne by the Contractor.

BIDDERS LIST

Pursuant to the provisions of 49 CFR Part 26.11 all official bidders will be required to report the names, addresses and telephone numbers of all firms that submitted bids or quotes in connection with this project. Failure to comply with a written request for this information within 15 business days may result in a recommendation to the Prequalification Committee that prequalification status be suspended until the information is received.

The Department will survey all firms that have submitted bids or quotes during the previous year prior to setting the annual goal and shall request that each firm report its age and gross receipts for the year.

BUILD AMERICA BUY AMERICA PREFERENCE

On Federally-aid projects the Buy America (23.CFR § 635.410) and Build America, Buy America Act. requires the following,

(1) all iron and steel used in the project are produced in the United States--this means all manufacturing processes, from the initial melting stage through the application of coatings, must occur in the United States. Foreign steel and iron can be used if the cost of the materials does not exceed 0.1% of the total Contract cost or $2,500, whichever is greater. The action of applying a coating to a covered material (i.e., steel and iron) is deemed a manufacturing process subject to Buy America. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to requirements of Build America, Buy America. Steel used for temporary support of excavation, including H piles, soldier piles, and sheeting when the steel is required to be left in place is subject to requirements of Build America, Buy America. Temporary steel, shall remain in place when it falls within the influence zone of the soil supporting any structure or railroad tracks.

(2) all manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States and

(3) all construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. "Construction materials" includes an article, material, or supply—other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives—that is or consists primarily of:

- non-ferrous metals,
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables),
- glass (including optic glass),
- lumber; or
- drywall.

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

All articles, materials, and supplies should be classified as an iron or steel product, a manufactured product, or another product as specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 include "excluded materials" and "construction materials"); an article, material, or supply must not be considered to fall into multiple categories.

NATIONAL GRID EMERGENCY TELEPHONE NUMBERS

ELECTRIC:
Outage/ Emergency: 1-800-465-1212
New Service: 1-800-375-7405
Customer Support: 1-800-322-3223

EVERSOURCE EMERGENCY TELEPHONE NUMBERS

GAS:
Outage/ Emergency: 800-592-2000
New Service: 866-678-2744
Customer Support: 800-592-2000

VERIZON EMERGENCY TELEPHONE NUMBERS

TELEPHONE:
Outage/ Emergency: 1-800-837-4966
New Service: 1-800-922-0204
Customer Support: 1-800-837-4966

DIGHTON WATER DISTRICT EMERGENCY TELEPHONE NUMBERS

WATER:
Outage/ Emergency: 774-872-0917
New Service: 774-872-0917
Customer Support: 774-872-0917

COMCAST CABLE CORPORATION EMERGENCY TELEPHONE NUMBERS

CABLE:
Outage/ Emergency: 1-800-934-6489
New Service: 1-800-934-6489
Customer Support: 1-800-934-6489

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL

(02/06/2020)

Demolition and work involving painted steel shall conform to the requirements of Subsection 961 of the Standard Specifications.

Work Involving Painted Steel

Hazardous materials shall be removed in the immediate area of any intended welding, heating, saw cutting or burning of steel. Hazardous material removal is required to allow the demolition of structural steel, railings, drainage systems, utility supports, steel lamp posts, etc.

The contractor shall assume that the coatings on the steel contain lead (Pb), unless otherwise determined by testing. The contractor shall certify in writing to the Engineer the results of all testing, and shall also certify that any lead (Pb) coated steel removed from the project was not reused or buried, but was sent to a scrap metal recycling facility.

Implement and maintain programs and procedures, which comply with the requirements of this specification and all applicable standards and regulations. Comply with all applicable regulations even if the regulation is not specifically referenced herein. If a state or local regulation is more restrictive than the regulation of this specification, follow the more restrictive requirements.

This requirement is intended only for the demolition and preparation prior to repair and does not include provisions for recoating of steel.

Environmental

All applicable portions of Subsections 961.65 “Worker Protection” and 961.66 “Environmental Protection and Monitoring” shall be followed when performing this work.

During chemical stripping a hand washing facility may be used in lieu of a decontamination/changing facility.

Hazardous material shall be collected during the disassembly and disposed of as outlined in Subsection 961.68 “Handling of Hazardous Waste and Reporting Release Programs”.

The applicable submittals shall be according to Subsection 961.69 “Submittals”.

GENERAL REQUIREMENTS FOR DEMOLITION AND WORK INVOLVING PAINTED STEEL (Continued)

Cleaning/Removal

Cutting Or Burning Of Steel

All surfaces to be welded, heated, saw cut or burned shall be cleaned so as to remove all contaminants and/or hazardous materials, which could be discharged to the environment as a function of the subsequent operations.

Lead paint shall be removed in its entirety in an area prescribed by a 6 inch (15 cm) minimum offset from the required work. The paint removal operation may be dry abrasive blasting, wet abrasive blasting or chemical stripping.

Proper level of containment shall be used when performing this work in accordance with Subsection 961.67 "Containment". Full containment is not required during chemical stripping operation however; the Contractor shall install proper shielding and/or tarpaulins under the chemical stripping operations in order to catch all debris generated during this procedure. A cleaned area must be inspected and approved before the demolition operations are started.

During cleaning operations the Contractor shall be required to furnish and erect temporary floodlights illuminating the steel surface at a minimum of 30-foot candles. This lighting shall be used in areas where there is insufficient lighting for proper cleaning operations and inspection. The Contractor shall supply electrical power.

The Contractor shall provide support for interim and final inspection of the bridge during cleaning operations. This support shall include the necessary traffic controls and safe access to the work.

Mechanical Disassembly Of Steel

All surfaces to be mechanically disassembled by shear cutting or removing bolts or rivets shall not require deleading. When shear cutting or removing bolts or rivets, the Contractor shall not use any method that will cause dust and/or particles to be emitted and/or dispersed into the environment to an extent that would expose the workers above the Action Levels of 30µg/m3.

For purposes of limiting the lead (Pb) dust, the Contractor will be required to dampen the lead paint work areas.

The contractor shall install a proper shielding and/or tarpaulins under all lead-paint-coated surfaces to be shear cut or bolts or rivets ordered removed in order to catch any loose lead paint chips, dust or particles.

PIGEON WASTE

The Contractor shall remove and dispose of the pigeon waste and any other debris accumulated on the steel members and bridge seats in areas where work is being performed. Pigeon waste and debris material contaminants will require special handling and disposal in accordance with all Federal, state, and local requirements. No separate payment will be made for removal and disposal of pigeon waste. Cost shall be incidental to the contract pay items.

EMERALD ASH BORER ADVISORY

To the extent possible, all trees and brush shall be disposed on site, typically chipped and spread in place. When trees or brush must be removed, such as in urban, or otherwise populated areas, Contractor shall identify proposed location for disposal, and provide written notification to the Engineer for approval. Disposal shall be in city or town of project, or at minimum, within county, of construction operations.

CONTAMINATED SOIL

Soil to be removed from the project area shall not be assumed to be uncontaminated and must be evaluated prior to off-site management for potential contamination with hazardous materials. No soil may be disposed of off-site without proper assessment by the contractor and approval from the Resident Engineer (RE), District Environmental Engineer (DEE), or the project designee.

SOIL STOCKPILING DIRECTIVE P-22-001

Any stockpiling of soil must be performed in compliance with Policy Directive P-22-001, Off-Site Stockpiling of Soil from MassDOT Construction Projects. This directive limits the allowable locations for off-site stockpiling of soil generated during MassDOT projects and includes various requirements that must be satisfied by the contractor prior to off-site stockpiling. The Contractor is responsible for identifying a suitable stockpile location.

ENVIRONMENTAL PERMITTING

The proposed work occurs in jurisdictional wetland resources subject to section 401 and section 404 of the Clean Water Act; therefore, a Water Quality Certification from the Massachusetts Department of Environmental Protection and Nationwide Permit authorization from the US Army Corps of Engineers have been obtained. The Contractor is advised that all terms and conditions within said permits shall be strictly adhered to. The proposed work qualifies for the bridge exemption authorized in the Transportation Bond Bill and is therefore not subject to the Massachusetts Wetlands Protection Act, the Massachusetts Public Waterfront Act (Chapter 91), or the Massachusetts Environmental Policy Act. The proposed work, however, is subject to the Dighton wetlands bylaws. An Order of Conditions has been obtained from the Dighton Conservation Commission under the Dighton wetlands bylaws. The Contractor is advised that all terms and conditions within the Order of Conditions shall be strictly adhered to.

If Contractor erection, demolition, storage, or other procedures not originally allowed by existing environmental permits require work to occur in or otherwise impact water or wetland resource areas, the Contractor is advised that no associated work can occur until all required environmental permits have been either amended or obtained allowing such work. The Contractor must notify the MassDOT Highway Division District 5 Highway Director and Resident Engineer in writing at least 60 days prior to commencement of the proposed activity. All environmental submittals, including any contact with Local, State, or Federal environmental agencies, must be coordinated through the MassDOT Highway Division District 5 Environmental Engineer. The Contractor is expected to fully cooperate with requests for information and provide same in a timely manner. The Contractor is further advised that the Department will not entertain a delay claim due to the time required to modify or obtain the environmental permits.

TIME-OF-YEAR (TOY) RESTRICTIONS

No in-water, silt-producing work shall occur during the Time of Year (TOY) restrictions between the dates of March 15 to June 30 and September 1 to November 15. Work may proceed behind dewatered cofferdams during the spring TOY provided that: cofferdams are installed prior to March 15th; migratory pathways are not impacted; and a Water Control/Sediment Control Plan is approved by DMF. Work may proceed during the fall TOY period provided that: a Water Control/Diversion Plan (i.e. Control of Water Plan referenced in Condition 10) is approved by DMF; and cofferdams are installed before September 1st. Plans Should be submitted to Brad Chase (brad.chase@mass.gov) and Stephanie Berkman (Stephanie.Berkman@mass.gov).

NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION

The northern long-eared bat (*Myotis septentrionalis*; NLEB) and tricolored bat (*Perimyotis subflavus*; TCB) are listed as federally endangered or proposed endangered, respectfully, under the Endangered Species Act (ESA). The U.S. Fish and Wildlife Service (USFWS) developed this guidance to address ESA compliance and promote conservation of NLEB and TCB. This project has been consulted with the USFWS through the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and Federal Transit Administration (FTA) Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. and generated a May Affect, Not Likely to Adversely Affect (NLAA) determination (see Document A00844). Subsequently, the project has completed Section 7 consultation under the ESA.

In advance of the uplisting of the TCB to endangered under the ESA, the following Avoidance and Minimization Measures (AMMs) must be strictly adhered to in order to protect NLEB and TCB and to be in compliance with the ESA. Contact MassDOT Environmental Services - Wildlife Unit Supervisor for questions about project limits, restrictions, or conservation measures.

General AMM

- The Contractor shall ensure all personnel working in on the project site are aware of all environmental commitments related to NLEB and TCB, including all applicable AMMs. NLEB and TCB information (https://www.fws.gov/midwest/endangered/mammals/nleb/ and https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus) shall be made available to all personnel.
- On 6/5/2024, MassDOT Highway Division Environmental Services conducted a northern long-eared bat summer presence/absence survey, in accordance with the 2024 survey guidelines. The survey did not confirm the presence of NLEB and/or TCB. If work is proposed by the Contractor past 6/5/2029, additional review is required by the MassDOT Highway Division's Environmental Services Section, and additional review and restrictions may be required by the USFWS.

Tree Removal AMMs

- *If additional cutting is proposed by the Contractor that is outside the scope of this contract, additional review is required by the MassDOT Highway Division's Environmental Services Section, and additional review and restrictions may be required by the USFWS.*

Bridge AMM

- On 5/21/2024, MassDOT Highway Division Environmental Services, conducted a northern long-eared bat bridge/structure bat assessment, in accordance with the USFWS guidelines. The assessment did not find presence of, or evidence of use by bats, and as stated within the guidelines, the assessment is valid for two years. If bridge work is not complete before 5/21/2026, assessment of the bridge for the presence of, or evidence of use by, bats shall be completed by the MassDOT Wildlife Unit prior to continuing bridge work. The Contractor shall notify the MassDOT Wildlife Unit no later than fourteen (14) days prior to 5/21/2026 to provide adequate time for inspection. If bats are found to be present, or, if there is evidence of bat usage, work at the bridge shall not commence until after the MassDOT Wildlife Unit has completed coordination with the US Fish and Wildlife Service to determine the appropriate follow up or mitigation actions.

DIAMONDBACK TERRAPIN PROTECTION PLAN

General

This section outlines the requirements of the Natural Heritage and Endangered Species Program (NHESP) of the Division of Fisheries and Wildlife (DFW) for projects that occur in the vicinity of Diamondback Terrapin populations. The requirements consist of monitoring and protecting turtles during the replacement of bridge D-08-002, Pleasant Street over Muddy Cove Brook.

One Time Sweeps – Prior to Work in the Area

The Turtle Monitor (the Monitor) shall be a MassDOT biologist (David J. Paulson, (857) 262-3378, david.j.paulson@dot.state.ma.us; or a representative from MassDOT Wildlife and Endangered Species Unit) approved by the Natural Heritage and Endangered Species Program (NHESP). The Monitor shall obtain a scientific collecting permit from the NHESP to handle wood turtles. The Monitor shall visit the site prior to the start of work, and the Contractor and/or Resident Engineer shall coordinate this site visit with the Monitor at least 60 days prior to construction commencement. The Monitor shall sweep the site prior to any cofferdam installation, site clearing, grubbing, earth disturbance, or site preparations. The Monitor shall inspect vegetation within 200 feet of the stream, as well as areas meant for staging, clearing, grading, grubbing or any other construction related activities outside of the paved roadway, prior to the establishment of the limit of work line and immediately before machines enter the area.

In the event a terrapin is discovered on site, the Registered Engineer must contact the Monitor immediately. Contact information of the Monitor will be provided to the Resident Engineer.

If any turtles are found during the sweeps during the turtle active season, the turtles will be relocated to suitable habitat immediately beyond the construction site. If the turtles are found during the brumation period for turtles, the turtles will be relocated under water to suitable stream habitat outside the limit of work. This will be completed using a submerged bucket, net, or hands. At no point during the relocation during the brumation period will the turtles be removed from the water.

Upon completion of the monitoring, the Monitor shall provide the NHESP with a summary of activities at the construction site. This report shall include the number and duration of visits and rare species observation forms for all state-listed species encountered. In the event of finding an injured turtle, the turtle shall be transported to a suitable veterinarian. In the event of finding a turtle with a radio transmitter, the NHESP and the contact on the transmitter shall be alerted immediately.

All state-listed species encountered in or near the project shall be reported to the NHESP through a Rare Animal/Plan Observation Report with the required supporting materials within 10 days of the observation. No state-listed species may be removed from the project site unless under the direct supervision of the Monitor or the NHESP.

DIAMONDBACK TERRAPIN PROTECTION PLAN (Continued)

Construction Worker Training:

The Monitor shall provide to the Resident Engineer/Construction Foreperson Diamondback Terrapin identification and handling pamphlets. All construction, landscaping, and other sub-contractors associated with the Project shall be informed in writing of the likely presence of State-listed Species on the Property and what measures (observation and injury protection) should be implemented to minimize direct harm to State-listed Species.

Further, no wildlife shall be removed from the Property without approval of a qualified wildlife biologist or the Division except as necessary to receive veterinary treatment in the case of harm during construction.

This protocol may require only one to two days of labor, including field surveys and correspondence with the NHESP.

There will be no payment for the work conducted by the Turtle Monitor, as the Monitor will be provided to the Contractor as a free service by MassDOT.

VALUE ENGINEERING CHANGE PROPOSAL

This Subsection defines the conditions and requirements which apply to Value Engineering Change Proposals ("VECPs"). The purpose of this provision is to encourage the Contractor to propose changes in certain project requirements that will maintain the project's functional requirements at a savings in contract time, contract price, or both. The net savings obtained by using a VECP that meets the conditions and requirements set forth here will be shared by the Contractor and MassDOT.

VECP's under this provison are to be initiated, developed and submitted to MassDOT by the Contractor. The VECP must show the contemplated changes to the Drawings, Specifications and other requirements in the Contract. When a VECP submitted pursuant to this section is fully accepted by MassDOT, the VECP will be implemented by the Contractor and paid using the current cost and resource loaded schedule. Contractor shall demonstrate that the VECP is equal to, or better than, the original design or material; that there is an interest in public safety within the VECP; that there is a life-cycle cost benefit; and/or that end users will benefit from the shortened schedule. VECPs shall be consistent with the MassHighway/MassDOT Standard Specifications for Highways and Bridges and other applicable reference documents and directives. Any proposed deviation from these documents will need to be clearly identified in the VECP Proposal Documents, and must be approved by MassDOT's Chief Engineer before accepting this VECP.

A. In order to be considered for MassDOT review each VECP shall:
   1. Be clearly labeled pursuant to this Subsection;

   2. Yield a net savings at least two hundred and fifty thousand (250,000.00) Dollars and/or a net saving of contract completion duration of at least three (3) months;

   3. The proposed changes to contract items must:

      a. maintain the specified items' required functions (service life, reliability);

      b. meet applicable safety regulations and codes;

      c. material substitutions must be in accordance with DOT prequalified/preapproved products and must be tested in accordance with standard material specs/testing methods (and considering all relevant environmental, load, and other relevant factors);

      d. show economy of operation, ease of maintenance, ease of construction, and necessary standardized features and appearance; and

   4. Shall not require an extension of Contract Time or Contract Milestones, with the exception of cases when there are anticipated significant cost saving.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

The thresholds above are considered to be a general guideline. MassDOT will consider VECPs outside of these thresholds if a significant benefit is demonstrated. Additionally, notwithstanding this VECP process, MassDOT will consider minor revisions in the form of a Contract Modification.

Further, any VECP submitted shall be in sufficient detail to clearly define the proposed change. The Contractor's failure to provide information of the type, detail and in a format to facilitate the MassDOT's review, may be grounds for rejection of the VECP. Additionally, the Contractor will not be entitled to any equitable adjustment or increased Time, due to any aspect of any of the proposed VECP including permitting, right of way, utility coordination or delayed responses by MassDOT. If, after the progression of the work associated with the executed Contract Modification for the VECP, any additional costs are realized by the Contractor or any of the sub- consultants, sub-contractors, or suppliers, the Contractor shall be obligated to pay for any and all costs.

B. The following initial items shall be provided by the Contractor for MassDOT's review. *Items 1-6 need to be submitted prior to the start of MassDOT's review of the VECP and item 7 is an important consideration for the pricing of the VECP and the timeline of the proposed VECP schedule.*

1. ***VECP Description***: A description of the difference between the existing and the proposed Contract requirements, and the comparative advantages and disadvantages of each;

2. ***VECP Change Listing***: A listing of the Contract requirements that will need to be changed, modified, or reviewed as well as the proposed Contract document changes in the Instructions to Bidders, Contract, Standard Specifications, General Requirements and Special Provisions required by the VECP.

3. ***Construction Schedule Update*:** Any changes in the Contract Time(s) or Contract Milestone(s), that will result from acceptance of the VECP, shall be accompanied by a contemporaneous schedule analysis *(i.e, the Contractor's baseline schedule submission, all past/required monthly schedule updates, a detailed assessment of all past delays, and a resource loaded Crticial Path Method schedule as specified in Section 8.0 / Subsection 8.02 of this Contract)* of the projected Work that remains including the proposed VECP related schedule changes *(inclusive of the timeline to review accept the VECP and the timeline for implementing the design changes)* in the remaining work. This shall be submitted in the form of a Proposal Schedule until the VECP has been formally accepted. Note: All of this information is to be updated, recertified, and formally accepted by MassDOT before final acceptance of this this VECP is issued.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

4. ***Date for MassDOT's Acceptance***: A statement that clearly justifies the date by which the VECP must be accepted to obtain the maximum price reduction, noting any effect upon the Contract Time(s) and/or Contract Milestone(s). This statement must include a narrative that demonstrates the most recent construction schedule has been utilized to justify that proposed acceptance date *(e.g. "in order to start to fabricate critical materials, authorization must be provided to work on the shop drawings by no later than [date]").* The Contractor should allow for at least sixty (60) to ninety (90) days for acceptance by MassDOT once all of the VECP documentation has been provided. Acceptance shall mean that MassDOT has received a finalized and executed contract modification. However, this is a proposed Contract change.

   The Contractor is fully obligated to progress the Work of the original Contract and MassDOT is not liable for any delays or costs that may occur in the review phase of any VECP proposal.

5. ***Cost and Savings Estimates***: A detailed estimate of the anticipated net savings, calculated as follows:

   a. ***Original Scope:*** Isolate the cost of performing the original contract construction activities, in accordance with the original Contract Documents, as originally bid by the Contractor, that are anticipated to be superseded by the VECP. *This cost is to include any original contract scope that is anticipated to be altered or eliminated by the VECP such as, shop drawing preparation, inspection work, testing, maintenance of traffic, or any other original contract costs, that have yet to have been performed at the time of this VECP submission.*

   b. ***New VECP Scope:*** Calculate the cost of performing the comparable construction activities associated with the VECP.

   c. ***Contractor's Engineer & Inspection***: Calculate the cost of engineering, inspection, and design work by the Contractor's Engineer/Designer. This should be a realistic estimate of the costs of any required engineering, design and review work by the Contractor's Engineer.

   d. ***MassDOT's Costs:*** MassDOT's estimate of costs to perform engineering/design reviews, cost estimate reviews, schedule reviews, and any other administrative costs to review and recommend implementation of the proposed VECP. *(including all anticipated increased costs to MassDOT on other Contracts and all anticipated follow-on increased costs to MassDOT, if any)* as provided by MassDOT. MassDOT's estimated costs must be included the VECP calculation and will be provided by MassDOT in support of the VECP evaluation process.

   e. ***Other Costs:*** Estimated costs associated with any revisions to other project related costs, such as Environmental Permits or Right of Way acquisitions, including other agency or municipality costs, as provided by MassDOT.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

Net Savings:
The net savings to be split between MassDOT and the Contractor shall be calculated using the items above as follows: a - (b+c+d+e) = net savings

6. *The Contractor shall also provide:*

   a. A proposed Change Order, which explains and justifies any required Equitable Adjustment in the Contract Price.

   b. The Contractor's actual costs expended for developing the VECP as of the date of the VECP submission;

7. ***Design Changes and Drawings*****:** The costs that are outlined above should be inclusive of the following design and engineering responsibilities.

   a. Design changes shall be prepared and stamped by the Contractor's professional designer and/or engineer. In addition, in the development of the VECP; the Contractor is responsible for anticipating and managing all aspects associated with any VECP design work that must be performed by a licensed Engineer.

   b. The Contractor's engineer must analyze and stamp all components of any aspect of the project that has been redesigned, changed, or altered as a result of this VECP.

   c. The Contractor's engineer shall provide all calculations and supporting design/engineering documentation that was utilized to develop the changes and stamped drawings. These will be used by MassDOT's Designer-of-Record to review the VECP changes. The Contractor is limited to selecting only those engineer's that have been pre-qualified by MassDOT's A&E Board.

   d. MassDOT's Designer-of-Record will review and respond to all completed design submissions related to this VECP within thirty (30) calendar days, unless determined to be a non-critical path item.

   e. MassDOT will be responsible for estimating and managing MassDOT's Designer-of-Record during the VECP review and implementation. Should any significant conflicts arise, between the Contractor's Engineer and MassDOT's Designer-of-Record, the DOT and the Contractor will work expeditiously to resolve the conflict. Should this type of conflict continue for greater than five (5) days, the Contractor is to bear all financial and time related impacts of such delay and must seek to resolve the design conflict, in an acceptable manner to MassDOT. The resolution of this conflict will be funded at the Contractor's expense – exclusive of the net saving that was agreed to at the execution of the contract modification for this VECP.

   f. The Contractor's Engineer may also be required to inspect the construction work. The Contractor is to include such anticipated inspection costs in the initial VECP.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

g. MassDOT's Designer of Record will remain the Designer-of-Record for the entire Project. Any costs incurred in the use of MassDOT's Designer-of-Record by MassDOT or Contractor associated with the review of a VECP are to be included in the calculated net savings.

C. Approval of the VECP shall not occur until a Contract Modification, incorporating the VECP, is issued by MassDOT and properly executed by the Contractor. MassDOT may accept or reject part or all of any VECP at any time prior to an executed Contract Modification for the applicable VECP. The decision of MassDOT, concerning acceptance or rejection of any VECP, shall be final and shall not be subject to dispute resolution.

It is expected that several weeks may go by before the final VECP documentation has been executed with a Contract Modification. Therefore, MassDOT intends to make certain that the initial cost estimate information has not changed before entering into a Contract Modification. As the VECP evaluation process is finalized, and prior to the signed Contract Modification for the VECP, the Contractor and MassDOT must re-certify the current status of the originally proposed cost and/or schedule savings.

Until a contract modification is issued and schedule and cost/savings re-certification is complete and accepted by MassDOT, the Contractor shall remain obligated to perform the Work in accordance with the terms and conditions of the original Contract Documents.

Upon completion of the work associated with the VECP, MassDOT may require verification that the VECP savings has been achieved.

D. VECPs will be processed (distributed, reviewed, commented upon, accepted or rejected) expeditiously (pursuant to M.G.L. c. 30, § 39R); however, as this is an elective modification to the contract, MassDOT shall not be liable for any delay or cost in the review and acceptance of the VECP. During the review of the VECP, the Contractor remains obligated to progress the original Contract scope, and schedule, as planned; until a Contract Modification, accepting the Contractor re-certified VECP, has been executed by MassDOT.

The Contractor has the right to withdraw part, or all of any VECP, prior to acceptance by MassDOT. Such withdrawal shall be made in writing to the Engineer. The Contractor shall state the period of time, from the date of the initial VECP submittal, that the VECP shall remain valid and feasible. Revision of this validity and feasibility period shall be allowed only by mutual agreement of the Contractor and the Engineer in writing.

If the Contractor desires to withdraw the proposal prior to the expiration of this period for non-technical reason, MassDOT reserves the right to recover all actual costs that have been incurred to MassDOT.

VALUE ENGINEERING CHANGE PROPOSAL (Continued)

If the Contractor withdraws the VEC Proposal, MassDOT reserves the right to proceed with the VECP or any portion of the VECP as a normal change and the Contractor waives any right it may have had to share in net savings thereunder.

For purposes of this provision, expiration of the time established by the Contractor for approval shall be considered as withdrawal by the Contractor if MassDOT requests an extension of that time and the Contractor does not provide a written extension.

E. With regard to unknown conditions or sub-surface work, in general, the expectation is that the Contractor and MassDOT will strive to gain enough knowledge about the risks in order to provide a forward-priced Change Proposal. Therefore, any costs to fully evaluate the proposal, such as additional borings and/or test pits, must be considered in the cost evaluation of whether the VECP is worth pursuing. However, if it is impractical to gather conclusive exploratory information, before the VECP is executed, MassDOT may consider provisions in the VECP that clearly identifies the risk sharing (cost and time) related specifically to the unknown/sub-surface conditions. If these VECP provisions are acceptable to MassDOT they are to include supplemental language to provide a determination of the final savings/cost, and time impacts, no later than 45 days after the sub-surface work is completed. All other aspects of the VECP, unrelated to these Provisions, will be binding upon execution of the VECP.

ITEM 102.2 TREE TRIMMING LUMP SUM

The work under this item shall conform to the relevant provisions of Subsections 8.08 and 101 of the Standard Specifications and the following:

The work consists of removing all living, dead, dying, broken and certain other limbs and branches in areas adjacent to proposed overhead wire relocations, highway lighting, traffic signals, traffic signage, other areas as described on the plans, and as required by the Engineer from trees located within the limits of the Project and the satisfactory disposal of all such removed debris.

Tree trimming shall be done as required by the Engineer. Any tree trimming for overhead wire relocations shall meet the current requirements of each Utility. Prior to commencing work the Contractor shall verify each location with the Utility Companies.

All pruning and tree work shall be in conformance with the most current version of the American National Standards Institute (ANSI) Standard Z-133.1 and A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance.

All tree trimming work within 10 feet of energized power lines and equipment shall be in conformance with the most current version of the United States Department of Labor (DOL) OSHA Standard 1910.269(r) along with subsections (1) through (8).

All work under this Item will be performed or supervised by the Massachusetts Certified Arborist. The Contractor shall provide a crew, consisting of a bucket truck with operator and grounds man for pruning and removal. The minimum crew shall consist of the following: a supervisor and three tree-trimmers/laborers. The crew shall be equipped with all necessary equipment needed to complete the work including, but not limited to, pickup trucks, chippers, gas powered chain saws, hand saws, loppers, shears, pruners, branch trimmers, ladders, tree-climbing equipment, etc. Fuel for equipment shall also be considered incidental to this Item. The crew shall be OSHA certified as line-clearance tree trimmers in order to work within 10 feet of energized power lines and equipment.

SUBMITTALS

Prior to start of work, the Contractor shall submit to the Engineer the name, certification number and resume of the Massachusetts Certified Arborist referenced herein. Cost for Certified Arborist for all activities pertaining to this Item shall be incidental to this Item.

Incidental to this Item, the Contractor shall provide to the Engineer one (1) copy of the most current version of the American National Standards Institute (ANSI) Standard Z-133.1 and A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance, Part 1: Pruning. These references shall be kept by the Engineer at his/her office for the length of the Contract.

Prior to start of work, the Contractor shall coordinate with the MassDOT Landscape Design Section, the Electric Utility Company, and the Utility Company with pole set in the field to confirm number, location, and extent of selective tree trimming.

ITEM 102.2 (Continued)

DESCRIPTION OF WORK

- **Line-clearance Tree Trimming:** Shall be defined as the pruning, trimming, repairing, maintaining, removing, or clearing of trees or the cutting of brush that is near (within 10 feet of) energized power lines.
- **Tree:** Shall be defined as having a diameter of 4 inches or over, measured at a point 3 feet above the average ground.
- **Limbs and Branches:** Shall be defined as wood having a diameter of ½ inch or over and wood that has a diameter of less than ½ inch shall be considered a TWIG.
- **A Dying Limb or Branch:** May have live growth at some point but shall be removed if found to be in an unhealthy condition.

While it is not the intent that every dead, dying and/or broken twig be removed from trees requiring trimming, the tree worker will be required to remove all such twigs accessible in the areas of the tree in which he/she is working.

If required by the Engineer, specific trees or parts thereof which are so located that damage may result from dropping shall be reduced by rope or cable lowering.

Tree shaping may be required on trees, where up-branching done under this contract has distorted the natural symmetry of the tree. Tree shaping shall consist of the removal of limbs and branches from other locations of the tree where removal is desirable to restore natural symmetry.

All sucker growth on all tree trunks within the limits of the contract shall be removed from the ground level to the beginning of the main branch system.

Any and all trees, branches, or brush conflicting with utility poles, equipment, overhead wires, and service connections, shall be removed and/or cut back using best practices to satisfy the requirements of all Utilities with an attachment to the pole line.

Any and all branches extending directly below a street luminaire as to limit the light reaching the street or path/sidewalk surfaces shall be removed and all branches shall be cut back to afford a minimum of 5-foot clearance on all sides of the luminaire. The path/sidewalk surface shall be considered as the area from the edge of the roadway surface to the edge of the path/sidewalk surface farthest from the roadway.

By cutting NEARLY, but not quite, flush with the trunk, limb or branch, the "collar" is left at the top of the wound (in the crotch of the union). This will permit the callus growth to cover the wound in a shorter period of time.

BASIS OF PAYMENT

Item 102.2 will be paid for at the Contract Lump Sum Bid Price and shall be considered full compensation for all labor, certifications, submittals, materials, equipment, apparatus, tools and all incidental costs required to complete the work.

ITEM 102.3 HERBICIDE TREATMENT OF INVASIVE PLANTS HOUR

This work must be performed by persons who meet the qualifications below and are approved by the Landscape Design Section.

Work under this item consists of herbicide treatment of invasive plants currently existing within the project limits and as directed. An Invasive Plant Management Strategy (IPMS) shall be submitted to the Engineer for review and approval and the IPMS shall be implemented on-site. The IPMS shall be measured and paid for under Item 102.33 Invasive Plant Management Strategy.

Work under this item shall be coordinated with work and schedule for Selective Clearing, Clearing and Grubbing, Mowing, Tree Removal, Planting, and Wetland Mitigation items.

Payment is per hour on-site and shall be compensation for a minimum crew of 2 licensed applicators, 2 back-pack sprayers and mist-blowers, a properly equipped spray truck with spray hoses, and a tank with sufficient capacity for a full day of work. If there is only one applicator, hourly payment shall be adjusted to 50 percent of the unit price. This item is not intended for manual removal of plants.

Management of plants determined to have been introduced to the site via imported loam, compost, mulch, plants, equipment, or other construction activities will be the Contractor's responsibility and at the Contractor's expense.

Herbicide shall be applied during daytime hours only.

Measures to prevent the introduction of invasive plant species to the site and to address introduction due to construction-related activities shall be covered under the Standard Specifications, Division I - Subsections 7.01(D) Plant Pest Control and 7.13 Protection and Restoration of Property as amended in these Special Provisions.

Plant species targeted for management under this item shall be as determined in the field per the site walk and as specified in the IPMS.

The definition of invasive plant species shall be as described by Massachusetts Invasive Plant Advisory Group (MIPAG): "non-native species that have spread into native or minimally managed plant systems in Massachusetts, causing economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems."

Control of invasive plants shall begin immediately with the initiation of construction activities and prior to any clearing or site disturbance. Treatment areas shall include stockpile locations and may, upon approval of the Engineer, extend outside the project limit. Treatment shall be done each consecutive year for the duration of the contract unless specified otherwise in the IMPS or unless directed otherwise by the MassDOT invasive species contact. Work shall be done during the growing season from May – October unless otherwise specified in the IPMS.

Areas identified for vegetation control measures shall be as shown on the plans and as determined in the field by the Engineer and a MassDOT Landscape Architect. Contact at MassDOT Landscape Design Section may be contacted at: Peter.R.Spellmeyer@dot.state.ma.us.

ITEM 102.3 (Continued)

QUALIFICATIONS

The applicators shall submit and meet the qualifications outlined below. A list of contractors specializing in invasive management and approved by MassDOT Landscape Design Section is available on the following website: https://www.mass.gov/lists/landscape-design-and-roadside-maintenance under Invasive Plant Management.

Requirements

1. Company must provide proof of qualifications by providing the following:
   a. Narrative describing company, its expertise and experience with invasive plant control.
   b. Demonstrate experience with herbicide treatment as part of restorations and in sensitive areas.
   c. Describe company's technical qualifications and past performance.

2. Company must meet licensing requirements:
   a. All crew applicators must have a Massachusetts Commercial Applicator License (CORE).
   b. At least one or more applicator must have a ROW certification, if required for work.
   c. Company must provide name(s) of applicator(s) and Applicator License/Certification number for all contractor crew leaders working on the project.
   d. Company must provide documentation of any warnings, penalties or fines received in the last three (3) years.

3. Company must provide proof of experience with invasive plant control and include following:
   a. At least five (5) references from prior invasive plant control work completed in last five (5) years. Provide contact information including address, phone number and email.
   b. Provide a summary of each of these projects including nature of the problem, specific invasive vegetation treated, dates and period of treatment, methodologies used, and summary of success or not in terms of meeting performance objectives. Include summary of equipment used.
   c. Photo documentation of these projects.
   d. GPS coordinates of project locations, if available.

4. Crew leader must have expertise with invasive plant control and provide the following:
   a. Have held Core license for at least five (5) years.
   b. Resume listing five (5) or more years of experience applying pesticides with the company or with another company specializing in vegetation management.

SUBMITTALS

No work shall begin without approval of the submittals.

Submittals include the following items:

ITEM 102.3 (Continued)

Invasive Plant Management Strategy (IPMS)

At least thirty (30) days prior to proposed treatment the IPMS shall be submitted for approval by the Engineer and MassDOT Landscape Architect. All chemicals, methods and work done under this item shall be consistent with the IPMS. The IPMS shall be as described under Item 102.33.

Herbicide Use Report

Within two (2) weeks after each application, the Contractor shall provide to the Engineer a completed and signed MassDOT Herbicide Use Report.

Photo Documentation

Digital photos with date and time of herbicide application work may be required and shall be submitted upon request.

MATERIALS

All proposed herbicides shall be as approved in the IPMS. Herbicides shall be labeled for the method of treatment and shall meet all federal, state and local regulation requirements. Application rates will depend on herbicide proposed and shall be per the manufacturer's label for specific application.

METHODS

All methods used shall be as approved in the IPMS which shall be determined during the Initial Site Walk as described under Item 102.33 Invasive Plant Management Strategy.

The Contractor shall be responsible for marking delineated areas and plants to be preserved, removed, or otherwise treated. Fencing or other materials needed for marking and delineating protected areas shall be incidental to this item.

The Contractor shall notify the Engineer a minimum of 3 days prior to date of expected herbicide application. Applicators shall notify the Engineer upon arriving on-site and upon leaving the site.

Herbicide Applications

All herbicide application shall conform to Massachusetts Pesticide Laws and Regulations per the Massachusetts Department of Agricultural Resources (MDAR) Pesticide Bureau.

Mixing, applying and/or disposing of herbicides shall always be in accordance with instructions on their labels and all applicable federal, state, and local regulations. Mixing shall not occur within sensitive areas, wetlands, or buffer zones.

ITEM 102.3 (Continued)

The Contractor shall not spray 2 hours prior to precipitation, during rain, or during windy conditions. The Contractor shall be responsible for monitoring weather conditions and adjusting the work schedule as appropriate for the herbicide and application method to be used.

Targeted vegetation shall be identified and marked prior to treatment. Plants treated by foliar spray, injection or glove application or other methods that leave standing vegetation, as opposed to cut-stump application, shall remain clearly marked for identification through the contract period.

Desirable vegetation shall be protected from both spray and other physical damage.

Contractor is responsible for any damage to vegetation not designated for removal or treatment. Vegetation damaged shall be restored. Cost of replacement plants and/or restoration shall be borne by the Contractor.

Contractor shall ensure that the public does not enter a work area while herbicide application or spraying is underway.

Disposal Of Invasive Plant Material

All material to be cleared shall become the property of the Contractor. The satisfactory disposal of all cleared plant material (seeds, roots, woody vegetation, associated soils, etc.) shall be the Contractor's responsibility.

The Contractor shall take measures to prevent viable plant material from leading to further infestations (seeds, roots, woody material, etc.) while stockpiled, in transit, or at final disposal locations. All precautions shall be taken to avoid contamination of natural landscapes with invasive plants or invasive plant material.

Chipping, shredding, or on-site burning of plant material must be approved by the Engineer and included in the IMPS.

For plant material taken to an incinerating facility per the IPMS, a receipt from that facility shall be submitted to the Engineer as proof of disposal.

Where feasible, it is preferable to dispose of plants on-site or to bury them on-site with on-going monitoring for re-sprouting. Disposal locations and methods must be approved and included in the IPMS. Site work such as grading and seeding to stabilize and restore disposal area shall be incidental to this item.

The Contractor shall be responsible for treating or otherwise managing areas of re-growth due to improper disposal. Treatment shall be at the Contractor's expense.

Follow-Up Treatment

Plants and areas shall be re-treated as necessary and as appropriate to the time of year. Treatment shall be for the duration of the contract and per the IPMS.

ITEM 102.3 (Continued)

MEASURE OF SUCCESS

The expectation is a minimum of 85-95 percent control achieved after the first treatment, depending on plants targeted and extent of population, and based on the expectations laid out in the IPMS. The expectation for the contract duration is 95-100% eradication by the end of the treatment period, unless otherwise specified in the IPMS.

METHOD OF MEASUREMENT

Item 102.3 will be measured for payment by the Hour of crew time spent on the project doing actual herbicide application work. A crew shall be defined as a minimum of two licensed applicators each equipped with (at minimum) back-pack sprayer and mist blower. The crew shall also have a properly equipped spray truck with hoses and a tank with sufficient capacity for a full day of work.

BASIS OF PAYMENT

Item 102.3 will be paid at the contract unit price per Hour, which price shall include all labor, materials, equipment, tools, and all incidentals required to complete the work.

Payment will be based upon time spent on the project doing actual work and shall not include travel time to and from the Contractor's place of business and shall also not include time for investigative field trips.

If there is only one applicator, hourly payment shall be adjusted to 50 percent of the unit price.

The Invasive Plant Management Strategy will be paid for under Item 102.33.

ITEM 102.33 INVASIVE PLANT MANAGEMENT STRATEGY HOUR

This item consists of providing an Invasive Plant Management Strategy (IPMS) for the control of invasive plants currently existing on the project site and/or as directed and shall be coordinated with Item 102.3 Herbicide Treatment of Invasive Plants. The IPMS shall be submitted for review and approval and the IPMS shall be implemented on-site.

Herbicide treatment for invasive plants shall be as described under Item 102.3 Herbicide Treatment of Invasive Plants and shall be compensated per that Item.

Work under this item shall be coordinated with work and schedule for Selective Clearing, Clearing and Grubbing, Mowing, Tree Removal, Planting, and Wetland Mitigation as relevant to the project.

Individual attending the site walk and determining the Invasive Plant Management Strategy must demonstrate expertise with vegetation management and invasive plant control and submit qualifications as described below.

QUALIFICATIONS

Individual shall be from the same company as that providing services for Item 102.3 Herbicide Treatment of Invasive Plants and shall submit the following, if not submitted under Item 102.3:

- Submit copy of current Core license.
- Submit a resume listing five (5) or more years of experience managing invasive plants with a company specializing in vegetation management.
- References shall be submitted if requested.

SUBMITTALS

Task Summary & Reports

For measurement of payment, the contractor shall submit the total sum and a breakdown of hours for the tasks performed. At a minimum, the tasks shall include the Initial Site Walk, the IPMS Written Report, and if necessary to accommodate project or site changes, a Follow-up Site Inspection and accompanying IPMS Amendment.

Interim Site Monitoring Reports and/or a Final Report shall be submitted if requested by the MassDOT Landscape Design contact. The MassDOT Landscape Design contact must be notified to attend the final walk through when a Final Report has been requested.

Invasive Plant Management Strategy (IPMS)

At least thirty (30) days prior to construction activities and/or any proposed treatment, submit a written IPMS proposal for approval by the Engineer and MassDOT Landscape Architect. All chemicals and methods proposed shall be consistent with applicable Massachusetts Wetlands Protection Act Order of Conditions.

ITEM 102.33 (Continued)

The IPMS shall be completed in coordination with the Roadway Contractor and the Engineer and shall include the following as appropriate to the project:

I. Project Information
- a. Company writing IPMS and performing herbicide application.
- b. Date of site walk
- c. Attendees at site walk
- d. Expected end date of contract and expected last treatment (month/season)

II. Brief Description of Conditions
- a. Provide a free-hand sketch on construction plans or aerial image showing species, location, and as relevant, show or note extent of population as relevant to Strategy (i.e., population extends off ROW preventing eradication, small population and eradication deemed feasible within contract schedule, etc.).

III. Coordination with Roadway Contractor regarding other work
- a. Tree Work: Note coordination to be implemented with tree removal, clearing, and clearing and grubbing as applicable to the project.
- b. Wetland Mitigation - Include management proposed for wetland mitigation areas in the IPMS, if and as required.
- c. Planting: If there will be planting in areas proposed for treatment, propose treatment and schedule to avoid herbicide damage to plants.
- d. Mowing: If coordination is required with state mowers, note need in IPMS.

IV. Soil Management
- a. Provide specifics on how soil with invasive plant roots (in particular) or seeds will be handled (i.e., separate stockpiles, plant material will be buried on-site, re-used on-site, disposed off site and if so, where?).
- b. Show stockpile locations on plan and include treatment schedule.
- c. Note measures that will be implemented to avoid spread through equipment, including how and where equipment will be cleaned.

V. Invasive Plant Treatment & Management
- a. Proposed chemical and methods of treatment for each species or area.
- b. Time of treatment based on target plant species.
- c. Submit product label including application methods and rates (entire MSDS information need not be submitted if available online).
- d. Proposed performance metrics or measure of treatment success if different from that specified under Item 102.3.
- e. Method for disposing invasive plant material. This includes material that may result in spread (i.e., seeds, roots) and material that has been treated and/or is not viable (foliage, dead wood, etc.). Methods may include grinding in place, stockpiling and treating, and incinerating offsite.
- f. Expected follow-up treatment for duration of contract.

VI. Monitoring Schedule if requested by MassDOT.

Note: The IPMS is critical for identifying pre-construction conditions as well as strategies for minimizing import or spread of invasive plants. Failure to provide an approved IPMS may jeopardize this item, in which case, the contractor will be responsible for management of invasive plants found on-site at no cost to the contract.

ITEM 102.33 (Continued)

Photo Documentation

Digital photos with date and time verification shall be provided with the IPMS and with any follow-up monitoring or reporting.

METHODS

Initial Site Walk

Prior to any construction activities and soil disturbance, the Contractor shall walk the site with the Engineer and the MassDOT Landscape Architect to determine the IPMS. During the site walk the Contractor shall identify limits of work and, as necessary, mark locations of areas designated for treatment and individual plants targeted for treatment or removal. The Contractor shall be responsible for marking delineated areas and plants to be preserved, removed, or otherwise treated. Fencing or other materials needed for marking and delineating protected areas shall be incidental to this item.

IPMS Follow-up Amendment

The IPMS may be amended to address additional concerns or adjust to conditions if required by the MassDOT Landscape Architect. The amended IPMS shall be submitted to the Engineer and MassDOT Landscape Architect for approval at least fourteen (14) days prior to any proposed treatment.

Interim Site Monitoring Inspection Reports

If required by the MassDOT Landscape Architect and Engineer, Interim Site Monitoring and an accompanying report shall be conducted.

Final Inspection

A final inspection and report documenting the status of the invasive control may be required for regulatory purposes or for instances where control will be continued by others. The report shall include photo documentation of pre-construction (existing) and post-treatment conditions, notations on a plan or aerial image of area treated, summary of treatment performed, and control achieved.

METHOD OF MEASUREMENT

Item 102.33 will be measured for payment by the Hour. The basis for measurement shall be per the completion of tasks as approved under the Task Summary submittal.

BASIS OF PAYMENT

Item 102.33 will be paid at the contract unit price per Hour, which price shall include all labor, materials, equipment, tools, and all incidental costs required to complete the work. Payment shall not include travel time to and from the Contractor's place of business.

ITEM 102.511 TREE PROTECTION - ARMORING AND PRUNING EACH

The work under this item shall conform to the relevant provisions of Subsection 771 of the Standard Specifications and the following:

Tree protection – armoring and pruning shall be used for instances where construction activity (the use of heavy equipment), comes within proximity to potentially damage tree trunk(s) or limbs.

The work shall include the furnishing and installing of temporary tree trunk protection, minor limb pruning, or removal of lower tree limbs to prevent injury to the tree from construction equipment and activities; as shown on the Drawings; and/or as required by the Engineer.

REFERENCES

If requested, the Contractor shall provide to the Engineer one copy of the latest edition of the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance: Part 1-Pruning and Part 5-Construction Management Standard. Provision of reference shall be incidental to this item.

MATERIALS

Trunk armoring shall be such that it prevents damage to the trunk from construction equipment. Material used for trunk armoring or mounting shall be such that installation and removal shall not damage the trunk.

Acceptable trunk armoring materials shall include two by four (2x4) wood cladding, mounted with wire or metal strapping, or when duration of construction activities is less than three months, slotted corrugated plastic pipe, mounted with duct tape. Eight (8) once untreated burlap shall be used to wrap the tree trunk prior to installation of cladding.

Alternative armoring methods or materials may be acceptable if approved by the Engineer.

The height of tree trunk cladding shall be measured from the base of the tree (including root flare) to the bottom of the first branch, or to a height of eight (8) feet, or as may be required by the Engineer.

METHODS OF WORK

Prior to construction activities, the Engineer, Contractor, and the Arborist (if item is included in the contract), shall review trees noted on the Drawings to be protected. Final decision and selection of trees to be armored and/or pruned shall be per the Engineer.

Care shall be taken to avoid damage to the bark during installation and removal of armoring. Trunk armoring shall be maintained such that it is effective for as long as required or replaced when materials are found to be damaged or ineffective, as determined by the Engineer. Replacement, if required, shall be incidental to the work. Armoring shall be removed immediately upon completion of work activities adjacent to the protected tree(s).

ITEM 102.511 (Continued)

Pruning of limbs shall conform to the techniques and standards of the most recent ANSI A300 standards.

DAMAGES OR LOSS

If trees designated for protection under this item are damaged, including root damage from unapproved trespassing onto the root zone, the Contractor shall, at his own expense, secure the services of an Arborist, described in Item 102.55. The Arborist shall be approved by MassDOT.

If, based on the recommendation of the Arborist, the Engineer determines that damages can be remedied by corrective measures, such as repairing trunk or limb injury; soil compaction remediation; pruning; soil injection fertilization; and/or watering; the damage shall be repaired as soon as possible, within the appropriate season for such work and according to industry standards.

If, based on the recommendation of the Arborist, the Engineer determines that damages are irreparable, or that the damages are such that the tree is sufficiently compromised to pose a future safety hazard, the tree shall be removed. Tree removal shall include cleanup of all wood, grinding of the stump to a depth sufficient to plant a replacement tree or plant, removal of all chips from the stump site, and filling the resulting hole with topsoil. Such tree removal(s), grinding, debris removal, and topsoil filling, shall be at the Contractor's expense.

Tree removal from improper or inadequate tree protection shall result in the Engineer assessing the Contractor monetary damages consistent with industry standards for assessed value and/or replacement.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 102.511 will be measured and paid at the contract unit price per EACH tree to be armored and pruned. This will include full compensation for all labor, equipment, materials, and incidentals for the satisfactory completion of the work and the subsequent removal and satisfactory disposal of the protective materials upon completion of the contract or as required by the Engineer.

Payment for work under this item will be scheduled as follows:

- 40% of the value shall be paid upon installation of trunk armoring and completion of pruning work, if required.
- 60% of the value shall be paid at the end of construction operations that would potentially damage the tree and after protection materials have been removed and properly disposed of by the Contractor. In the event of repairable damages, payment shall be made after the completion of remediation measures.

No separate payment will be made for costs of remedial actions, including Arborist services, tree removal, but all costs in connection therewith shall be included in the Contract unit price bid.

Tree damages assessed, due to lack of or improper tree and plant protective measures being taken, shall be deducted from the contract price of the work.

ITEM 102.513 AIR EXCAVATION AND ROOT PRUNING FOOT

Item 102.513 Air Excavation and Root Pruning is for the services of excavating soil with an air pressure tool in order to expose tree roots, and for associated services and materials necessary to complete the work of pruning, backfilling with existing soil, watering, mulching, and fertilizing. This item shall include the furnishing and operating the air excavating tool.

Associated Item: All references to Arborist herein shall refer to the Arborist under Item 102.55 Arborist. Arborist shall meet the requirements as specified under that Item and shall be compensated under that Item.

Trees to be air spaded shall be those shown on the plans and/or as determined necessary by the Engineer per the recommendations of the Arborist.

REFERENCES

The standards from American National Standards Institute (ANSI): A300 (Part 8)-2013 Root Management with special attention to Section 84 shall apply to this work. If requested, the Contractor shall provide to the Engineer one copy of this reference. Provision of reference shall be incidental to this item.

METHODS

Air excavation and pruning work shall be performed by or overseen by the Arborist.

Air excavation of soil and root pruning shall occur any time prior to equipment work within the root zone of marked trees.

Air excavation shall be done along the limit of proposed excavation. Trench shall be of sufficient width to observe and cut roots and shall be to the depth of proposed excavation. Immediately following air excavation, roots shall be pruned.

Following pruning, roots shall immediately be fully covered with backfill and immediately watered. Roots shall continue to be watered and fertilized as directed by the Arborist.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 102.513 will be measured and paid per foot where air spading, pruning, watering, and fertilizing are performed. This item will include full compensation for all labor, equipment, materials, and incidentals required for the satisfactory completion of the work.

Arborist services shall be per Item 102.55 Arborist and compensated under that Item.

ITEM 102.521 TREE AND PLANT PROTECTION FENCE FOOT

The work under this Item shall conform to the relevant provisions of Subsections 644 and 771 of the Standard Specifications and the following:

Work under this item shall consist of furnishing, installing, and maintaining tree and plant protection fence(s) in a vertical and taut position; removing and resetting fencing as may be required; and final removal of protection fence(s) at the completion of construction activities, or as otherwise required by the Engineer.

The purpose of the fencing is to signify a construction work-free zone and physical barrier, thereby preventing damage to tree roots, tree trunks, soil, and all other vegetation within this delineated Tree and Plant Protection Zone (TPPZ), as shown on the Drawings, as required by the Engineer, and as described herein.

Protection shall be for the duration of the construction activities unless otherwise required by the Engineer.

MATERIALS

Tree and plant protection fence(s) shall provide a minimum forty-eight (48) inch tall barrier, that remains vertical and taut. The Fence shall be orange plastic safety fence (recommended where high visibility is necessary), or wooden snow fencing, or other approved material. Posts and anchoring materials shall be incidental to the work.

Per requirements of the Engineer, additional posts, deeper post depths, and/or additional attachments shall be used if the fabric or fence sags, leans or otherwise is not providing visible or physical protection to the TPPZ.

REFERENCES

If requested, the Contractor shall provide to the Engineer one copy of the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance Part 1, Pruning and Part 5, Construction Management Standard. Provision of reference shall be incidental to this item.

ESTABLISHMENT OF THE TPPZ

Fencing shall be used to delineate and establish the TPPZ, adjacent to construction areas, staging areas, stockpile areas, as shown on the Drawings, and/or as required by the Engineer.

Fencing shall be located as close to the work zone limit and as far from tree trunk(s) and plants as possible to maximize the area to be protected. Fence shall run parallel and adjacent to construction activity to create a barrier between the work zone and the root zone or designated limit of plants and soils to be protected.

ITEM 102.521 (Continued)

When construction activities surround (or have the potential to surround) trees or plants to be protected, a circular enclosure shall be used. In these instances, the TPPZ limit shall be the drip line of each tree or as close as possible to the drip line, and/or as shown on the Drawings. The drip line is defined as the outermost limit of tree canopy.

The Contractor shall not engage in any construction activity within the TPPZ without the approval of the Engineer. Activities may including operating, moving, or storing equipment, supplies, or materials; and locating temporary facilities, including trailers or portable toilets, Accessing or traversing the TPPZ shall not be permitted.

METHOD OF WORK

TPPZ fencing shall be installed prior to any construction work or staging activities. Fence(s) shall be repositioned where and as necessary for optimum tree and plant protection. Repositioning shall be incidental to this item. TPPZ fencing shall not be moved without prior approval by the Engineer.

The TPPZ shall be protected at all times from compaction of the soil; damage of any kind to trunks, bark, branches, leaves, and roots of all plants; and contamination of the soil with construction materials, debris, silt, fuels, oils, and any chemicals substance.

After construction activities are completed, or when required by the Engineer, fencing, stakes, and other anchoring materials, if any, shall be removed and disposed off-site by the Contractor.

REQUIRED WORK WITHIN THE TPPZ

In the event that grading, trenching, utility work, or storage is unavoidable within the TPPZ, the Engineer shall be notified. Measures may be required for tree protection and preservations, including air spading; the use of six (6) inch depth of wood chips or approved matting for root protection; pruning of branches; and/or trunk protection. These protection measures shall be paid under applicable contract items.

Landscaping work specified within the TPPZ shall be accomplished by hand tools. Where handwork is not feasible, with permission of the Engineer, work shall be conducted with the smallest mechanized equipment necessary.

TREE AND PLANT INJURY OR LOSS

If the TPPZ is encroached by construction activity without approval, at the discretion of the Engineer, the Contractor may be required to provide a more durable barrier (e.g., Jersey Barriers, chain link fence (if not already in use) to secure the area. Costs of furnishing and installing additional or more durable barrier(s) shall be borne by the Contractor.

In such cases of encroachment, soils shall be considered compacted and tree root injury will be assumed. Action shall be taken as specified below.

ITEM 102.521 (Continued)

In the event that trees designated for protection under this item are injured, including root injury from unapproved trespassing onto the root zone, the Contractor shall, at his own expense, secure the services of an Arborist, described under Item 102.55. The Arborist shall be approved by MassDOT.

In the event of spills, compaction or injury, the Contractor shall take corrective action immediately using methods approved by the Engineer, in coordination with the Arborist.

If, based on the recommendations of the Arborist, the Engineer determines that injuries can be remedied by corrective measures, such as repairing trunk or limb injury, soil compaction remediation, pruning, and/or watering; the injury shall be repaired as soon as possible, within the appropriate season for such work, and according to industry standards.

If, based on the recommendations of the Arborist, the Engineer determines that injuries are irreparable, or that the injuries are such that the tree is sufficiently compromised to pose a future safety hazard, the tree shall be removed. Tree removal shall include cleanup of all wood, grinding of the stump to a depth sufficient to plant a replacement tree or plant, removal of all chips from the stump site, and filling the resulting hole with topsoil. Such tree removal(s), grinding, debris removal, and filling, shall be at the Contractor's expense.

Tree removal from improper or inadequate protection of the TPPZ shall result in the Engineer assessing the Contractor monetary damages consistent with industry standards for assessed value and/or replacement.

Shrubs removals from improper or inadequate protection of the TPPZ shall be replaced with plants of similar species and equal size or the largest size plants reasonably available. The Engineer shall approve the size, quality, and quantity of the replacement plant(s). Each replacement shall include a minimum of one year of watering and establishment care, specified under Section 771.

METHOD OF MEASUREMENT

Tree and Plant Protection Fence will be measured by the FOOT, complete in place, by the length along the top of the fence.

BASIS OF PAYMENT

Tree and plant protection fence will be paid for under the contract unit price per FOOT, complete in place and shall include all materials, labor, and equipment required to furnish, install, anchor, maintain, and remove the fence upon completion, as described herein. Posts, temporary footings, anchoring and removal upon completion, shall be incidental to this item.

No separate payment will be made for costs of remedial actions, including addition of more durable barriers, Arborist services, tree or plant removal, shrub replacement and establishment, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 102.521 (Continued)

Tree damages assessed, due to lack of or improper tree and plant protective measures being taken, shall be deducted from the contract price of the work.

Payment for work under this item will be scheduled as follows:

- Forty (40) percent of the value payment will be made upon installation of fencing.

- Sixty (60) percent of the value payment will be made when fencing materials have been maintained to function as specified, for the intended duration, and removed and disposed off-site at the completion of protection measure requirement.

ITEM 102.55 ARBORIST HOUR

DESCRIPTION

The work under this Item is for the services of a Certified Arborist. Arborist shall be an International Society of Arboriculture (ISA) Certified Arborist or a Massachusetts Certified Arborist. The Arborist shall have at least 10 years of experience in tree care, including tree protection during construction, and shall demonstrate a familiarity with the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance Part 1Pruning, Part 5 Construction Management Standards, and Part 9 Tree Risk Assessment.

The Arborist's general responsibilities include protecting high priority trees within and adjacent to the project limits, stating areas, and access routes; recommending removal of diseased, damaged or otherwise unhealthy trees that pose a potential safety hazard; evaluating effects of construction on future health of trees close to proposed work; and recommending and/or overseeing tree work amd care.

The Arborist for this item shall not be from the same company as the company responsible for selective clearing or tree removal work.

For projects with multiple phases, projects where construction activities (work or stockpiling) shifts, or when otherwise directed by the Engineer, the Arborist shall re-evaluate conditions and provide follow-up recommendations.

SUBMITTALS

- Contractor shall submit to the Engineer for approval by MassDOT Landscape Design the qualifications and experience of the Arborist. Submittal shall include copy of current certification and a resume summarizing specific construction experience (including relevant MassDOT projects) for a minimum of five projects.
- Arborist's Report documenting recommendations shall be submitted to the Engineer and an electronic copy forwarded to MassDOT Landscape Design Section. Report shall include the following:

SCOPE OF WORK

The Arborist shall be responsible for the following tasks:

- Initial Evaluation and Report
  - review and modify, if necessary, tree protection measures shown on the drawings
- Oversight
  - direct or execute pruning of branches and/or roots, air spading, and/or other tree care operations
- Monitoring and Inspections
  - periodically inspect fencing and ensure root zones are properly protected and clear of equipment and materials as required by the Engineer
  - submit inspection notes with relevant and dated photos to the Engineer.

ITEM 102.55 (Continued)

- Special Care
  - oversee tree pruning for health and aesthetics
  - recommend fertilization and amendments

METHODS

Prior to any work, the Arborist shall walk the site with the Contractor, the Engineer, the Town Tree Warden, and, if specified, the MassDOT Landscape Architect, to review trees, limits of construction activities, and other concerns. Where required for proper assessment of tree impacts, limits of work shall be staked or otherwise marked in the field prior to the site walk.

Trees to be removed shall be painted or otherwise marked.

Trees to be retained shall be marked such that it does not mar or damage the tree and such that marker is not easily removed. As applicable to the work and scope of the project, trees designated for removal or to be retained shall be noted on the plan and/or in the arborist's report and photographed.

Trees designated to remain that are damaged or removed by construction activities shall be noted and photographed for inclusion in inspection reports submitted to the Engineer.

METHOD OF MEASUREMENT

Item 102.55 will be measured for payment by the Hour of time spent onsite.

BASIS OF PAYMENT

Item 102.55 will be paid at the contract unit price per hour upon submittal and acceptance of Reports described above.

ITEM 115.1 DEMOLITION OF BRIDGE NO. D-08-002 LUMP SUM

The work under this item shall conform to the relevant provisions of Subsections 112 and 140 of the Standard Specifications and the following:

The work includes furnishing all labor, material and equipment necessary to perform demolition of the existing bridge as shown on the Plans or as required by the Engineer. Except as specified, all material and debris shall become the property of the Contractor, and shall be recycled, reused or disposed of in accordance with all applicable local, state and federal requirements.

The Contractor shall demolish, remove, and dispose of the following major items of the existing bridge as shown on the plans, including but not limited to: concrete bridge rail; wearing surface; concrete deck; concrete superstructure; concrete abutments; wingwalls; concrete pile caps; removal of exsiting piles; and other miscellaneous items. The existing piles may either be removed and disposed, or cut below the crushed stone limits and left in place, as required for the installation of new piles. Any removal or modification to the existing piles shall be paid for under this item.

The relocation work for the utility poles and overhead wires shall be completed prior to any demolition. Prior to phase 1 demolition, a new water gate valve and pipe shall be installed at the south approach in order to isolate water over the bridge, as shown on the Plans. Prior to phase 2 demolition, the exist. gas line shall be shut off and relocated under the new superstructure on the east side, as shown on the Plans.

All demolition shall be done in the dry. Control of Water will be paid for separately under Item 991.1 CONTROL OF WATER – STRUCTURE NO. D-08-002. Demolition shall not commence until all the required environmental measures are in place and approved by the Engineer, including sediment control barriers and control of water devices.

The Contractor shall be responsible for protecting from damage any utilities and drain pipes within the limits of the work area, as well as protection of the riverbed.

The Owner makes no assurances regarding the presented conditions, dimensions, and materials of the existing structures as shown on the Plans. The Contractor shall verify all existing conditions and construction features of the structure to be demolished, as necessary, for the proper planning and completion of the work. The Contractor shall base its bid on his/her own findings. No increase will be made to the bid prices due to the nature of the materials involved in the demolition. All costs for permits, dump fees, taxes, etcetera, shall be included in the bid price of the demolition items. Removal of contaminated material shall be paid under Item 181.11-181.14.

The Contractor shall be solely responsible for maintaining the stability of the existing structure at all times during demolition and construction operations. The Contractor shall prepare and submit a plan indicating the proposed demolition procedures and methods to be used including equipment, tools, devices, bracing, excavator capacity and location, schedule of operations, methods of utility protection, traffic management procedures, etc., to the Engineer for approval. The plan shall be in accordance with the requirements of Section 960.61 of the Standard Specifications. The submittal shall include drawings and calculations of all loads and selection of lifting devices, and shall be stamped by a Professional Structural Engineer registered in the Commonwealth of Massachusetts.

ITEM 115.1 (Continued)

The Contractor shall certify that all existing elements are suitably braced and supported throughout the demolition process. The Contractor's demolition method shall take into consideration any utilities on or near the bridge. Work under this item may not commence until the Engineer has given written approval.

The Contractor's demolition operations shall not damage any components of the structures to be temporarily, or permanently, retained. Any damage to these components, as a result, of Contractor's operations shall be repaired, or replaced in-kind, as directed by the Engineer and no additional compensation shall be made.

At least 30 days prior to the start of demolition work, notify the Engineer and each Utility having services connection to, or immediately adjacent to, or overhead of, the structure to be demolished. The Contractor shall exercise caution in the areas of any existing utilities to avoid damage to such.

BASIS OF PAYMENT

Item 115.1 will be paid for at the contract Lump Sum bid price, which price constitutes full payment for all labor, transportation, equipment, tools, disposal fees, design, submittals and all incidental costs required to complete the work as specified above, as shown on the Contract Plans and/or as required by the Engineer. Miscellaneous removals and disposals that are not specifically listed for payment under another item shall be deemed included under this Item.

The Contractor shall make his own investigation of the structure to be demolished including the materials that are part of or may be stored in the structure. No increase will be made to the bid price due to the nature of the materials involved in the demolition. All costs for permits, dump fees, shall be included in the bid price of the demolition item.

ITEM 151.9 STREAMBED RESTORATION LUMP SUM

This work shall consist of restoring the river bed where disturbance takes place in the project area within the limits of work. Work will primarily include removing, stockpiling, and replacing river bed material at the subject crossing structure. The streambed restoration shall replicate the existing natural channel bed outside the work area in terms of material, roughness, shape, profile, and appearance. The ultimate product will, to the extent possible, replicate the function and appearance of the natural stream channel, as illustrated in the accompanying photographs.





The Contractor shall coordinate with his/her sub-contractors to ensure all required equipment is available on-site to complete the work in this manner. The streambed restoration is required to comply with environmental permits issued for the project.

MassDOT Environmental Services will provide a Fluvial Geomorphologist (Geomorphologist) to provide review of the final design and on-site assistance during streambed restoration construction to ensure the restoration is constructed as required by these Special Provisions and in accordance with permit requirements.

At least 30 days prior to the commencement of construction, the Contractor shall coordinate with David Paulson (MassDOT Wildlife Unit Supervisor, (508) 389-6366 / david.j.paulson@dot.state.ma.us) to set up an initial (virtual or in-person) meeting with MassDOT's Geomorphologist, Contractor, and Resident Engineer. At this meeting, the Geomorphologist will provide an overview of the restoration work. The Contractor should be prepared to discuss the anticipated means, methods, and schedule.

Process Approval

In lieu of a mockup, the Contractor shall schedule an additional onsite meeting to discuss the streambed restoration with the Geomorphologist and respective parties from MassDOT. The Geomorphologist shall be onsite during initial streambed restoration. The Contractor shall provide the Geomorphologist adequate access to observe, direct, and inspect the channel restoration work throughout the duration of the removal, stockpile, and reinstallation of the existing streambed material.

ITEM 151.9 (Continued)

MATERIAL

The top 24 inches of streambed material excavated from the existing streambed shall be removed and stockpiled to facilitate reinstallation and replication of the natural streambed. The excavated streambed material below the top 2 feet shall be stockpiled and reused to fill the voids in the proposed riprap placed below the top streambed restoration layer.

In the event that the excavated material is not suitable or there is not enough available suitable material, additional streambed restoration material shall be locally sourced that matches the composition of the existing native riverbed.

Approximate Stream Bed Surface Material Size Distribution

Particle	Percent (%) Composition
Gravel	10
Sand	90

The streambed material shall be approved by the Resident Engineer and Geomorphologist prior to use.

CONSTRUCTION

The streambed material shall be installed within the area impacted along the abutments due to installation of the cofferdams to an average thickness of 24 inches with variations in thickness as necessary to replicate existing channel conditions. Streambed restoration will occur along both bridge abutments, within the dewatered work areas. The streambed restoration material shall blend into the undisturbed streambed in the center of the channel.

The initial placement of streambed material shall fill / choke the voids in the underlying riprap. Fill voids by shaking stone with the teeth of an excavator bucket, hand tamping with metal tamping rods, and by spraying water to settle fines between large stones. Plate compactors shall not be used. The purpose of filling the voids is to prevent subsurface flow where surface water disappears into large voids between the stone fill below the channel bed surface during low flow conditions. The final streambed shape and appearance shall be finalized in the field as directed by the Geomorphologist.

Reinstallation of the stockpiled streambed material shall be placed on top of the riprap to restore streambed habitat and fish passage. The streambed materials shall be installed during normal low water conditions behind cofferdams in accordance with the environmental permits.

ITEM 151.9 (Continued)

Completion

Once all material has been placed in the stream channel and approved by the Geomorphologist and Resident Engineer, the Contractor shall remove the cofferdams in such a way as to slowly wet the stream to minimize the initial sediment pulse. Every attempt shall be made to minimize the downstream movement of sediment.

The final streambed shall maintain the general configuration of the existing streambed bedform and there shall be minimal subsurface flow upon final inspection by the Resident Engineer and Geomorphologist. The project must be passable by fish and other aquatic organism following construction. Terrestrial wildlife must be able to walk along the riverbank.

The streambed restoration to be measured for payment will be the complete and accepted work for restoration of the streambed within the limits shown on the Plans as approved by the Resident Engineer and Geomorphologist.

BASIS OF PAYMENT

Item 151.9 will be paid for at the Contract Lump Sum bid price, which price shall be full compensation for excavating, stockpiling, transporting, and placing the material specified and for furnishing all labor, tools, equipment, testing, and incidental costs required to complete the work.

The Geomorphologist will be provided by MassDOT at no cost to the Contractor.

ITEM 180.01 ENVIRONMENTAL HEALTH AND SAFETY PROGRAM LUMP SUM

The work shall consist of ensuring the health and safety of the Contractor's employees and subcontracting personnel, the Engineer, their representatives, the environment, and public welfare from any on-site chemical contamination present in air, soil, water and sediment.

The Contractor shall prepare and implement a site-specific Environmental Health and Safety Plan (EHASP) which has been approved and stamped by a Certified Industrial Hygienist (CIH) and includes the preparer's name and work experience. The EHASP shall include appropriate components required by OSHA Standard 29 CFR 1910.120(b) and the Massachusetts Contingency plan (MCP) 310 CMR 40.0018 and must comply with all applicable state and federal laws, regulations, standards and guidelines, and provide a degree of protection and training appropriate for implementation on the project. The EHASP shall be a dynamic document with provision for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The EHASP shall be developed and implemented independently from the standard construction HASP required to work on all MassDOT construction projects.

Health and safety procedures provided by the Contractor shall comply with all the appropriate regulations that address employee working conditions, including but not limited to standards established by OSHA and National Institute for Occupational Safety and Health (NIOSH). Equipment used for the purpose of health and safety shall be approved by and meet pertinent standards and specifications of the appropriate regulatory agencies.

A copy of the most up-to-date version of the EHASP shall be maintained on-site at all times by the Contractor. The on-site copy shall contain the signature of the Engineer and each on-site employee of the MassDOT, Contractor, and Subcontractors involved with on-site activities. The employee's signature on the EHASP shall be deemed prima facie evidence that the employee has read and understands the plan. Updated copies of signature sheets shall be submitted to the Engineer.

The EHASP shall specify a Contractor Site Safety and Health Officer responsible for implementation of the EHASP and to oversee all construction activities, including handling, storage, sampling and transport, which require contact with or exposure to potentially hazardous materials.

The level of protection, required to ensure the health and safety of on-site personnel will be stipulated in the EHASP. The Site Safety and Health Officer shall implement the EHASP based on changing site and weather conditions, type of operation or activity, chemical compounds identified on-site, concentration of the chemicals, air monitoring data, physical state of the hazardous materials, potential duration of exposure to hazardous materials, dexterity required to perform work, decontamination procedures, necessary personnel and type of equipment to be utilized.

ITEM 180.01 (Continued)

During implementation of the EHASP, a daily log shall be kept by the Site Safety and Health Officer and a copy shall be provided weekly to the Engineer. This log shall be used to record a description of the weather conditions, levels of personal protection being employed, screening data and any other information relevant to on-site environmental safety conditions. The Site Safety and Health Officer shall sign and date the daily log.

BASIS OF PAYMENT

Preparation and implementation of the Environmental Health and Safety Program, including the monitoring, protection and storage of all contaminated materials, as well as subsequent modifications to the EHASP, will be measured and paid for at the Lump Sum Bid Price.

Payment of 50% of the Environmental Health and Safety Program contract price will be made upon the initial acceptance of the EHASP by the Engineer. Payment of the remaining 50% of the Environmental Health and Safety Program contract price will be made upon completion of the work. The bid price shall include preparation and implementation of the EHASP as well as the cost for its enforcement by the Site Safety and Health Officer along with any necessary revisions and updates. The work of implementing the Environmental Health and Safety Program includes work involving, but not limited to, the monitoring, protection, and storage of all contaminated materials.

ITEM 180.02 PERSONAL PROTECTION LEVEL C UPGRADE HOUR

The work shall consist of providing appropriate personal protective equipment (PPE) for all personnel in an area either containing or suspected of containing a hazardous environment.

Contingencies for upgrading the level of protection for on-site workers will be identified in the EHASP and the Contractor shall have the capability to implement the personal protection upgrade in a timely manner. The protective equipment and its use shall be in compliance with the EHASP and all appropriate regulations and/or standards for employee working conditions.

Personal Protection Level C Upgrade will be measured and paid only upon upgrade to Level C and will be at the contract unit price, per hour, per worker, required in Level C personal protection. No payment will be made to the Contractor to provide Level D PPE.

ITEM 180.03 LICENSED SITE PROFESSIONAL SERVICES HOUR

Within limited areas of the project site, media (i.e. soils, sediments, surface water and/or groundwater) requiring evaluation and/or management under the Massachusetts Contingency Plan (MCP) may be encountered. A Licensed Site Professional (LSP) shall be required to provide the services necessary to comply with the requirements of the MCP. These services may include a site walk, field screening, sampling, analysis and characterization of potentially contaminated media, preparation and implementation of Immediate Response Action (IRA) Plans, Utility-Related Abatement Measure (URAM) and Release Abatement Measure (RAM) Plans, Imminent Hazard Evaluations, status reports, transmittal forms, release notification forms, risk assessments, completion statements, and related documents required pursuant to the MCP. LSP services shall also be necessary to temporarily move material generated on the project to an off-site storage location.

The name and qualifications of the LSP and all environmental technicians to be assigned to the project shall be submitted to the Engineer for approval at least four weeks prior to initial site activities. The LSP shall have a current, valid license issued by the Massachusetts Board of Registration of Hazardous Waste Site Cleanup Professionals. The LSP shall have significant experience in the oversight of MCP activities at active construction sites. Qualification packages for the LSP and each technician shall include a resume, all recent work assignments with responsibilities identified (previous 5 years), and applicable training and certifications. A list of all Notices of Noncompliance, Notice of Audit Findings and Enforcement Orders issued by the Massachusetts Department of Environmental Protection (DEP) shall be submitted for all work assignments listed for the LSP and environmental technicians. Upon approval of the LSP Qualifications, the LSP will be designated as the LSP of Record unless MassDOT designates in writing otherwise. The LSP of Record will serve as the primary point of contact for all hazardous material matters on the project.

The LSP shall evaluate soil and/or sediment with discoloration, odor, elevated field screening results, presence of petroleum liquid or sheen on the groundwater surface, or any abnormal gas or materials in the ground which are known or suspected to be oil or hazardous materials. Excavated soil and sediment which is suspected of petroleum contamination shall be field screened using the jar headspace procedures according to established DEP Guidance. All field screening equipment must be pre-approved by the Engineer. The LSP shall ensure proper on-site calibration of all field screening instrumentation.

The Engineer shall be contacted immediately when observations or any field screening results verify contamination requiring further analysis, and/or enhanced management of suspect media. Any enhanced management of contaminated soil to ensure proper stockpiling and storage is incidental to the LSP Services item. The LSP shall evaluate the need for confirmatory sampling prior to backfill in areas where contaminated material has been excavated and disposed off-site for compliance with applicable regulatory requirements. The Engineer shall approve the locations of the testing sites prior to the sampling.

ITEM 180.03 (Continued)

Contaminated media shall be handled in accordance with all applicable state and federal statutes, regulations, and policies. The LSP shall adequately evaluate contaminated media for compliance with the requirements of the MCP and Department Policies.

The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations and both shall be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations. The LSP shall maintain written records in a clear and concise tabular format which tracks the excavation, stockpiling, analysis and reuse/disposal of all known/suspect contaminated media. These records shall be up-to-date and submitted to the Engineer on a bi-weekly basis. The LSP shall review and summarize the laboratory data from any analyses performed on contaminated media in a tabular format and compare the results to applicable reporting thresholds. A report shall be delivered to the Engineer outlining the material sampling methods, laboratory analysis results, evaluation of applicable regulatory exemptions, reporting obligations, and proposed course of action. The laboratory report together with Chain of Custody forms for all analytical results shall be submitted to the Engineer within 14 days after completion of such analyses.

The LSP and Contractor shall be held responsible for the submission of all MCP-related documents to the Engineer at least 14 days in advance of any timeframe specified in the MCP and for the timely submission of data and tracking information as noted within this Item. All documents prepared under this Item must be reviewed and signed by the approved LSP. The Contractor and LSP shall be responsible for all fines, damages, and enforcement requirements imposed by applicable regulatory agencies for failure to meet regulatory and contract timeframes. No compensation will be provided for such fines, damages, and enforcement actions.

The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations and shall both be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations.

If the Contractor causes a release of OHM, the Contractor shall be responsible for assessing and remediating the release in accordance with all pertinent State and Federal regulations, including securing the services of a LSP, at his own expense.

The LSP shall coordinate all activities involving both MassDOT and the DEP through the Engineer. Any notification of release shall be approved by the Engineer before submittal to the DEP, except if an imminent hazard condition exists as defined in 309 CMR 4.03(4)(b).

ITEM 180.03 (Continued)

LABORATORY TESTING IN SUPPORT OF LSP SERVICES

Laboratory testing provides for analytical testing in support of LSP services related to maintaining MCP compliance, such as delineating the extent and type of contamination present. Sampling and testing for disposal purposes are not included and are incidental to Items 181.11-181.14.

In order to maintain compliance with the MCP and Department Policies or other regulatory requirements, the LSP shall request approval from the Engineer to obtain samples from various locations and depths within the project area and to perform laboratory analyses on those samples. No sampling shall be conducted without prior approval from the Engineer. The samples shall be delivered to a DEP-certified laboratory using proper chain-of-custody documentation for analyses which, depending upon site conditions and suspected and/or identified contaminants of concern, may include, but are not limited to, metals, polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polycyclic aromatic hydrocarbons (PAHs), extractable petroleum hydrocarbons (EPHs) and volatile petroleum hydrocarbons (VPHs). Subsequent testing, depending upon initial results, may be required for Toxicity Characteristic Leaching Procedure (TCLP) analyses (EPA Method 1311) for metals.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

LSP Services for work under this item will be measured per person, per hour of service provided by LSP, Environmental Technicians and other approved personnel. Travel time shall not be included in the billable hours.

The quantity and type of laboratory tests must be approved by the Engineer beforehand. The Contractor will be reimbursed upon satisfactory written evidence of payment. The Contractor may be required to obtain cost estimates from three DEP certified laboratories for the Engineer to choose the service provider.

LSP Services will be paid at the Contractor bid price for each hour, or fraction thereof, spent to perform the work as described above. The bid price shall be a blended rate that includes the cost of the LSP, environmental technicians and other personnel, the performance of all work tasks and field screening, including required equipment, materials and instrumentation, and production of all documentation described above. All requests for payment must be accompanied by the following information: the names of the personnel associated with the work charged under LSP Services, dates and hours worked, work conducted, including, where appropriate, locations as identified on the construction plans, and a copy of the field diary for the dates submitted.

Laboratory testing will be reimbursed upon receipt of paid invoices for testing approved by the Engineer.

This item is for LSP work for compliance with the MCP and Department Policies. LSP hours and any laboratory testing related to off-site disposal of excess soil and sediment is incidental to Items 181.11-181.14 (including, but not limited to, disposal characterization, disposal package preparation, landfill acceptance, shipment paperwork preparation, field screening, and tracking). LSP hours for groundwater management (including characterization, obtaining off-site discharge permits, compliance testing, etc.) is incidental to Item 183.1.

ITEM 181.11 DISPOSAL OF UNREGULATED SOIL TON
ITEM 181.12 DISPOSAL OF REGULATED SOIL IN-STATE FACILITY TON
ITEM 181.13 DISPOSAL OF REGULATED SOIL OUT-OF-STATE FACILITY TON
ITEM 181.14 DISPOSAL OF HAZARDOUS WASTE TON

The work under these Items shall include the transportation and disposal of contaminated material excavated, or excavated and stockpiled. It shall also include the cost of any additional laboratory analyses required by a particular disposal facility beyond the standard disposal test set.

Excavation of existing subsurface materials may include the excavation of contaminated soils. The Contractor shall be responsible for the proper coordination of characterization, transport and disposal, recycling or reuse of contaminated soils. Disposal, recycling or reuse will be referred to as "disposal" for the purposes of this specification. However, regardless of the use of the term herein, there will be no compensation under these items for reuse within the project limits. The Contractor will be responsible for coordinating the activities necessary for characterization, transport and disposal of contaminated soils. Such coordination will include the Engineer and his/her designee overseeing management of contaminated materials. Contaminated soils must be disposed of in a manner appropriate for the soil classification as described below and in accordance with the applicable laws of local, state and federal authorities. The Contractor shall be responsible for identifying disposal facility (ies) licensed to accept the class of contaminated soils to be managed and assure that the facility can accept the anticipated volume of soil contemplated by the project. The Contractor shall be responsible for hiring a Licensed Site Professional (LSP) and all ancillary professional services including laboratories as needed for this work. The Contractor will be responsible for obtaining all permits, approvals, manifests, waste profiles, Bills of Lading, etc. subject to the approval of the Engineer prior to the removal of the contaminated soil from the site. The Contractor and LSP shall prepare and submit to the Engineer for approval all documents required under the Massachusetts Contingency Plan (MCP) and related laws and environmental regulations to conduct characterization, transport, and disposal of contaminated materials.

CLASSES OF CONTAMINATED SOILS

The Contractor and its LSP shall determine if soil excavated or soil to be excavated is unregulated soil or contaminated soil as defined in this section. Such materials shall be given a designation for purposes of reuse or disposal based on the criteria of the MCP. Soils and sediments which are not suitable for reuse will be given a designation for purposes of off-site disposal based on the characterization data and disposal facility license requirements. The Classes of Contaminated Soils are defined as follows:

ITEMS 181.11 through 181.14 (Continued)

UNREGULATED SOIL consists of soil, fill and dredged material with measured levels of oil and hazardous material (OHM) contamination at concentrations below the applicable Reportable Concentrations (RCs) presented in the MCP. Unregulated soil consists of material which may be reused (or otherwise disposed) as fill within the Commonwealth of Massachusetts subject to the non-degradation criteria of the MCP (310 CMR 40.0032(3), in a restricted manner, such that they are sent to a location with equal or higher concentrations of similar contaminants. Disposal areas include licensed disposal facilities, approved industrial settings in areas which will be capped or covered with pavement or loamed and seeded, and for purposes of this project should be reused as fill within the project site construction corridor whenever possible. The material cannot be placed in residential and/or environmentally sensitive (e.g. wetlands) areas. Under no circumstances shall contaminated soils be placed in an uncontaminated or less contaminated area (including the area above the groundwater table if this area shows no sign of contamination).

The Contractor shall submit to MassDOT the proposed disposal location for unregulated soils for approval. If such a disposal location is not a licensed disposal facility, the Contractor shall submit to the Engineer analytical data to characterize the disposal area sufficiently to verify that the unregulated material generated within the MassDOT construction project limits is equal to or less than the contaminant levels at the disposal site and meets the non-degradation requirements of the MCP. In addition, the Contractor shall provide written confirmation from the owner of the proposed disposal location that they have been provided with the analytical data for both the materials to be disposed as well as the disposal site characterization and that s/he agrees to accept this material. A Material Shipping Record or Bill of Lading, as appropriate, shall be used to track the off-site disposal of unregulated soil and a copy, signed by the disposal facility or property owner, shall be provided to the Engineer in order to document legal disposal of the unregulated material.

The cost of on-site disposal of unregulated soil within the project area will be considered incidental to the item of work to which it pertains.

ITEMS 181.11 through 181.14 (Continued)

REGULATED SOIL consists of materials containing measurable levels of OHM that are equal to or exceed the applicable Reportable Concentrations for the site as defined by the MCP, 310 CMR 40.0000. Regulated soil which meets the MCP reuse criteria of the applicable soil/groundwater category for this project area may be reused on site provided that it meets the appropriate geotechnical criteria established by the Engineer. Regulated Soil may be reused (as daily or intermediate cover or pre-cap contouring material) or disposed (as buried waste) at lined landfills within the Commonwealth of Massachusetts or at an unlined landfill that is approved by the Massachusetts Department of Environmental Protection (DEP) for accepting such material, in accordance with DEP Policy #COMM-97-001, or at a similar out-of-state facility. It should be noted that soils which exceed the levels and criteria for disposal at in-state landfills, as outlined in COMM-97-001, may be shipped to an in-state landfill, but require approval from the DEP Division of Solid Waste Management and receiving facility. An additional management alternative for this material is recycling into asphalt. Regulated Soils may also be recycled at a DEP approved recycling facility possessing a Class A recycling permit subject to acceptance by the facility and compliance with DEP Policy #BWSC-94-400. Regulated Soil removed from the site for disposal or treatment must be removed via an LSP approved Bill of Lading, Manifest or applicable material tracking form. This type of facility shall be approved/permitted by the State in which it operates to accept the class of contaminated soil in accordance with all applicable local, state and federal regulations.

HAZARDOUS WASTE consists of materials which must be disposed of at a facility permitted and operated in full compliance with Federal Regulation 40 CFR 260-265, Massachusetts Regulation 310 CMR 30.000, Toxic Substances Control Act (TSCA) regulations, or the equivalent regulations of other states, and all other applicable local, state, and federal regulations. All excavated materials classified as hazardous waste shall be disposed of at an out-of-state permitted facility. This facility shall be a RCRA hazardous waste or TSCA facility, or RCRA hazardous waste incinerator. This type of facility shall be approved/permitted by the State in which it operates to accept hazardous waste in accordance with all applicable local, state and federal regulations and shall be permitted to accept all contamination which may be present in the soil excavate. The Contractor shall ensure that, when needed, the facility can accept TSCA waste materials i.e. polychlorinated biphenyls (PCBs). Hazardous waste must be removed from the site for disposal or treatment via an LSP approved Manifest.

MONITORING/SAMPLING/TESTING REQUIREMENTS

The Contractor shall be responsible for monitoring, sampling and testing during and following excavation of contaminated soils to determine the specific class of contaminated material. Monitoring, sampling and testing frequency and techniques should be performed in accordance with Item 180.03 – LSP Services. Additional sampling and analysis may be necessary to meet the requirements of the disposal facility license. The cost of such additional sampling and analysis shall be included in the bid cost for the applicable disposal items. The Contractor shall obtain sufficient information to demonstrate that the contaminated soil meets the disposal criteria set by the receiving facility that will accept the material.

ITEMS 181.11 through 181.14 (Continued)

No excavated material will be permanently placed on-site or removed for off-site disposal until the results of chemical analyses have been received and the materials have been properly classified. The Contractor shall submit to the Engineer results of field and laboratory chemical analyses tests within seven days after their completion, accompanied by the classification of the material determined by the Contractor, and the intended disposition of the material. The Contractor shall submit to the Engineer for review all plans and documents relevant to LSP services, including but not limited to, all documents that must be submitted to the DEP.

WASTE TRACKING

Copies of the fully executed Weight Slips/Bills of Lading/ Manifests/Material Shipping Records or other material tracking form received by the Contractor from each disposal facility and for each load disposed of at that facility, shall be submitted to Engineer and the Contractor's LSP within three days of receipt by the Contractor. The Contractor is responsible for preparing and submitting such documents for review and signature by the LSP or other appropriate person with signatory authority, three days in advance of transporting soil off-site. The Contractor shall furnish a form attached to each manifest or other material tracking form for all material removed off-site, certifying that the material was delivered to the site approved for the class of material. If the proposed disposition of the material is for reuse within the project construction corridor, the Contractor shall cooperate with MassDOT to obtain a suitable representative sample(s) of the material to establish its structural characteristics in order to meet the applicable structural requirements as fill for the project.

All material transported off-site shall be loaded by the Contractor into properly licensed and permitted vehicles and transported directly to the selected disposal or recycling facility and be accompanied by the applicable shipping paper. At a minimum, truck bodies must be structurally sound with sealed tail gates, and trucks shall be lined and loads covered with a liner, which shall be placed to form a continuous waterproof tarpaulin to protect the load from wind and rain.

DECONTAMINATION OF EQUIPMENT

Tools and equipment which are to be taken from and reused off site shall be decontaminated in accordance with applicable local, state and federal regulations. This requirement shall include, but not be limited to, all tools, heavy machinery and excavating and hauling equipment used during excavation, stockpiling and handling of contaminated material. Decontamination of equipment is considered incidental to the applicable excavation item.

ITEMS 181.11 through 181.14 (Continued)

REGULATORY REQUIREMENTS

The Contractor shall be responsible for adhering to regulations, specifications and recognized standard practices related to contaminated material handling during excavation and disposal activities. MassDOT shall not be responsible at any time for the Contractor's violation of pertinent State or Federal regulations or endangerment of laborers and others. The Contractor shall comply with all rules, regulations, laws, permits and ordinances of all authorities having jurisdiction including, but not limited to, Massachusetts DEP, the U.S. Environmental Protection Agency (EPA), Federal Department of Transportation (DOT), Massachusetts Water Resources Authority (MWRA), the Commonwealth of Massachusetts and other applicable local, state and federal agencies governing the disposal of contaminated soils.

All labor, materials, equipment and services necessary to make the work comply with such regulations shall be provided by the Contractor without additional cost to MassDOT. Whenever there is a conflict or overlap within the regulations, the most stringent provisions shall apply. The Contractor shall reimburse MassDOT for all costs it incurs, including damages and/or fines, as a result of the Contractor's failure to adhere to the regulations, specifications, recognized standard practices, etc., that relate to contaminated material handling, transportation and disposal.

SUBMITTALS

I. Summary of Sampling Results, Classification of Material and Proposed Disposal Option.

The following information, presented in tabular format, must be submitted to the Engineer for review and approval prior to any reuse on-site or disposal off-site. This requirement is on-going throughout the project duration. At least two weeks prior to the start of any excavation activity, the Contractor shall submit a tracking template to be used to present the information as stipulated below. Excavation will not begin until the format is acceptable to MassDOT.

Characterization Reports will be submitted for all soil, sediment, debris and groundwater characterized through the sampling and analysis program. Each report will include a site plan which identifies the sampling locations represented in the Report. The Construction Plan sheets may be used as a baseplan to record this information.

The Sampling Results will be presented in tabular format. Each sample will be identified by appropriate identification matching the sample identification shown on the Chain of Custody Record. The sample must also be identified by location (e.g. grid number or stockpile number). For each sample, the following information must be listed: the classification (unregulated, regulated, etc.), proposed disposal option for the stockpile or unit of material represented, and, all analytical results.

ITEMS 181.11 through 181.14 (Continued)

Each Characterization Report will include the laboratory analytical report and Chain of Custody Record for the samples included in the Report.

II. Stockpiling, Transport, and Disposal.

At least two weeks prior to the start of any excavation activity, the Contractor shall submit, in writing, the following for review and shall not begin excavation activity until the entire submittal is acceptable to MassDOT.

Excavation and Stockpiling Protocol:
Provide a written description of the management protocols for performing excavation and stockpiling and/or direct loading for transport, referencing the locations and methods of excavating and stockpiling excavated material.

Disposal and Recycling Facilities:
1. Provide the name, address, applicable licenses and approved waste profile for disposal and/or recycling location(s) where contaminated soil will be disposed. Present information substantiating the suitability of proposed sites to receive classifications of materials intended to be disposed there, including the ability of the facility to accept anticipated volumes of material.

2. Provide a summary of the history of compliance actions for each disposal/recycling facility proposed to be used by the Contractor. The compliance history shall include a comprehensive list of any state or federal citations, notices of non-compliance, consent decrees or violations relative to the management of waste (including remediation waste) at the facility. Material should not be sent to facilities which are actively considered by the DEP, USEPA or other responsible agency to be in violation of federal, state or local hazardous waste or hazardous material regulations. MassDOT reserves the right to reject any facility on the basis of poor compliance history.

Transportation:
The name, address, applicable license and insurance certificates of the licensed hauler(s) and equipment and handling methods to be used in excavation, segregation, transport, disposal or recycling.

III. Material Tracking and Analytical Documentation for Reuse/Disposal.

The following documents are required for all excavation, reuse and disposal operations and shall be in the format described. At least two weeks prior to the start of any excavation or demolition activity, the Contractor shall submit the tracking templates required to present the information as stipulated below. Excavation or demolition will not begin until the format is acceptable to MassDOT.

ITEMS 181.11 through 181.14 (Continued)

All soils, sediments and demolition debris must be tracked from the point of excavation to stockpiling to onsite treatment/processing operations to off-site disposal or onsite reuse as applicable.

Demolition Debris:
Demolition debris must be tracked if the debris is stockpiled at a location other than the point of origin or if treatment or material processing is conducted. Identification of locations will be based on the station-offset of the location. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations/comments, quantity, and stockpile ID/processing operation location. For each unit of material tracked, the table will also track reuse of the material on-site, providing reuse date, location of reuse as defined by start and end station, width of reuse location by offset, the fill elevation range, quantity, and finish grade for said location. For demolition debris which is not reused on site, the table will also track disposal of the material as defined by disposal date, quantity and disposal facility. The table must provide a reference to any analytical data generated for the material.

Soil/Sediment:
Soil excavation will be identified based on the station-offset of the excavation location limits. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations, quantity, and stockpile number/location. For each unit of material tracked, the table will also track reuse of the material on-site and disposal of the material off-site using the same categories identified for demolition debris above.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Disposal of contaminated soil shall be measured for payment by the Ton of actual and verified weight of contaminated materials removed and disposed of. The quantities will be determined only by weight slips issued by and signed by the disposal facility. The most cost-effective, legal disposal method shall be used. The work of the LSP for disposal under all of these items shall be incidental to the work with no additional compensation.

ITEM 181.11 Measurement for Disposal of Unregulated Soil shall be under the Contract Unit Price by the weight, in tons, of contaminated materials removed from the site and transported to and disposed of at an approved location or licensed facility, and includes any and all costs for approvals, permits, fees and taxes, additional testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 181.12 Measurement for Disposal of Regulated Soil – In-State Facility shall be under the Contract Unit Price by the weight in tons of contaminated materials removed from the site and transported to and disposed of at an approved in-state facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEMS 181.11 through 181.14 (Continued)

ITEM 181.13 Measurement for Disposal of Regulated Soil - Out-of-State Facility shall be under the Contract Unit Price by the weight in tons of contaminated materials removed from the site and transported to and disposed of at an approved out-of-state facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 181.14 Measurement for Disposal of Hazardous Waste shall be under the Contract Unit Price by the weight in tons of hazardous waste removed from the site and transported to and disposed of at the licensed hazardous waste facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 182.1 INSPECTION AND TESTING FOR ASBESTOS LUMP SUM

The work shall include the inspecting and testing of all materials suspected of containing asbestos. When any demolition is required to enable the inspection and testing of the suspected material it will be considered incidental to this Item and the Contractor must perform all asbestos handling and testing in accordance with the regulations stated below.

Dust suppression in the form of light water sprays, foams, dust suppressants and calcium chloride will be implemented as required to control dusting during any disturbance of asbestos suspected material. Alternatively, intrusive activities may be reduced or curtailed under high wind or heavy rain conditions, which in the opinion of the Health and Safety Plan (HASP) may pose a safety hazard to the workers.

The Contractor shall employ the services of a Massachusetts licensed "Asbestos Inspector" to inspect the material to determine whether or not "ITEM 182.2 REMOVAL OF ASBESTOS" is required. Should the asbestos inspector determine laboratory testing is required, a state certified laboratory shall be used to perform all necessary tests.

REGULATIONS

U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA) including but not limited to:

29 CFR 1910 Section 1001 and 29 CFR 1926 Section 58 Occupational exposure to Asbestos, Tremolite, Anthophyllite and Actinolite, Final Rule
29 CFR 1910 Section 134 Respiration Protection
29 CFR 1926 Construction Industry
29 CFR 1910 Section 2 Access to Employee Exposure and Medical Records
29 CFR 1910 Section 1200 Hazard Communication
29 CFR 1910 Section 145 Specifications for Accident Prevention Signs and Tags

U.S. Environmental Protection Agency, (EPA) including but not limited to:

40 CFR 762, CPTS 62044, FRL 2843-9, Federal Register Vol. 50 no.134, July 12, 1985 p.28530 - 28540 Asbestos Abatement Projects Rule
40 CFR 61 Subpart A Regulation for Asbestos
40 CFR 61 Subpart M (Revised Subpart B) National Emission Standard for Asbestos

U.S. Department of Transportation 49 CFR 172 and 173

Massachusetts Department of Labor Standards Regulations, (DLS) including but not limited to:

454 CMR 28.00 Removal, Containment and Encapsulation of Asbestos

ITEM 182.1 (Continued)

Massachusetts Department of Environmental Protection (DEP) including but not limited to (supplementing subsection 7.01):

310 CMR 7.00, Section 7.09 Odor and Dust, Section 7.10 Noise, Section 7.15 Air Pollution Control Regulations
310 CMR 18.00 and 19.00 Solid Waste Regulations

Massachusetts Division of Industrial Safety 45 CMR 10.00

Local Requirements including but not limited to those of Health Departments, Fire Departments and Inspection Services Departments

Wherever there is a conflict or overlap of the above references, the most stringent provision shall apply.

BASIS OF PAYMENT

Item 182.1 will be paid for at the Contract unit price per Lump Sum, which price shall include all labor, materials, tools, equipment, and all incidental costs required to complete the work as described and as required by the Engineer.

No separate payment will be made for the protection of general public, private property, the proper inspecting and testing of the material, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 182.2 REMOVAL OF ASBESTOS FOOT

The work shall include the removal and satisfactory disposal of existing asbestos. The Contractor's attention is directed to the fact that existing asbestos shall be inspected and tested prior to removal, to determine if special removal and disposal is required. The Contractor shall follow all the rules and regulations stated in "ITEM 182.1 INSPECTION AND TESTING FOR ASBESTOS". If asbestos is present, the Contractor shall follow all the rules and regulations stated in the section "REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS", under this item. The Contractor should notify and coordinate his/her efforts with the proper utility accordingly.

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

This section specifies the requirements for the handling and removal of asbestos containing material. The Contractor must perform all asbestos handling and removal work in accordance with these specifications and the following additional requirements.

U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA) including but not limited to:

29 CFR 1910 Section 1001 and 29 CFR 1926 Section 58 Occupational exposure to Asbestos, Tremolite, Anthophyllite and Actinolite, Final Rule
29 CFR 1910 Section 134 Respiration Protection
29 CFR 1926 Construction Industry
29 CFR 1910 Section 2 Access to Employee Exposure and Medical Records
29 CFR 1910 Section 1200 Hazard Communication
29 CFR 1910 Section 145 Specifications for Accident Prevention Signs and Tags

U.S. Environmental Protection Agency, (EPA) including but not limited to:

40 CFR 762, CPTS 62044, FRL 2843-9, Federal Register Vol. 50 no.134, July 12, 1985 p.28530 - 28540 Asbestos Abatement Projects Rule
40 CFR 61 Subpart A Regulation for Asbestos
40 CFR 61 Subpart M (Revised Subpart B) National Emission Standard for Asbestos

ITEM 182.2 (Continued)

U.S. Department of Transportation 49 CFR 172 and 173

Massachusetts Department of Labor Standards, (DLS) including but not limited to:

454 CMR 28.00 Removal, Containment and Encapsulation of Asbestos

Massachusetts Department of Environmental Protection (DEP) including but not limited to (supplementing subsection 7.01):

310 CMR 7.00, Section 7.09 Odor and Dust, Section 7.10 Noise, Section 7.15 Air Pollution Control Regulations
310 CMR 18.00 and 19.00 Solid Waste Regulations

Massachusetts Division of Industrial Safety 45 CMR 10.00

Local Requirements including but not limited to those of Health Departments, Fire Departments and Inspection Services Departments

Wherever there is a conflict or overlap of the above references, the most stringent provision shall apply.

All asbestos material shall be removed and properly disposed of by a contractor or subcontractor with a current Massachusetts Abatement Contractors License issued by the Department of Labor Standards. Work shall be supervised by a competent person as required by OSHA in 29 CFR 1926 to ensure regulatory compliance. This person must have completed a course at an EPA Training Center or equivalent course in asbestos abatement procedures, have had a minimum of four years on-the-job training and meet any additional requirements set forth in 29 CFR 1926 for a Competent Person. This person must also be certified by the Commonwealth as an Asbestos Supervisor and Asbestos Project Designer as required by 454 CMR 28.00.

Asbestos removal work shall be coordinated with all other work under the contract and shall be completed prior to performing any activities which could disturb the asbestos material or produce airborne asbestos fibers.

Dust suppression in the form of light water sprays, foams, dust suppressants and calcium chloride will be implemented as required to control dusting during trenching and excavation. Alternatively, intrusive activities may be reduced or curtailed under high wind or heavy rain conditions, which in the opinion of the Health and Safety Plan (HASP) may pose a safety hazard to the workers.

ITEM 182.2 (Continued)

NOTIFICATION AND PERMITS

The Contractor shall prepare a formal pre-notification form at least ten (10) days prior to the start of asbestos removal work. This form must be submitted to the appropriate Regional Office of the Massachusetts Department of Environmental Protection and to the U.S. Environmental Protection Agency Region I Air and Hazardous Material Division. A copy of the submitted forms must be provided to the Engineer and kept at the work site.

Prior to starting any work, the Contractor shall also obtain any required asbestos removal permit(s) from the city/town. A copy of the permit(s) must be provided to the Engineer and posted at the work site.

The Contractor shall also obtain and pay all other applicable asbestos waste transportation and disposal permits, licenses and fees.

STANDARD OPERATING PROCEDURES

The standard operating procedure shall ensure the following:

1. Proper site security including posting of warning signs and restricting access to prevent unauthorized entry into the work spaces.

2. Proper protective clothing and respiratory protection prior to entering the work spaces.

3. Safe work practices including provisions for communications; exclusion of eating, drinking, smoking, or use of procedures or equipment that would in any way reduce the effectiveness of respiratory protection or other engineering controls.

4. Proper exit practices from the work space though the showering and decontamination facilities.

5. Removing asbestos containing material in ways that minimize release of fibers.

6. Packing, labeling, loading, transporting and disposing of contaminated material in a way that minimizes or prevents exposure and contamination.

7. Emergency evacuation of personnel, for medical or safety (fire and smoke) so that exposure will be minimized.

8. Safety from accidents in the work space, especially from electrical shocks, slippery surfaces and entanglements in loose hoses and equipment.

9. Provisions for effective supervision and OSHA - specified personnel air monitoring for exposure during work.

ITEM 182.2 (Continued)

REQUIRED SUBMITTALS

The Contractor shall submit to the Engineer the following listed items at least ten (10) calendar days prior to the start of asbestos work. No asbestos removal work activities shall commence until these items are reviewed by the Engineer, unless otherwise waived. Submittals shall be clearly labeled and in sufficient detail to enable the Engineer to form an opinion as to its conformity to the specifications.

1. Name, experience and DLS certification of proposed Supervisors and Foreman responsible for asbestos work.

2. Summary of workforce by disciplines and a notarized statement documenting that all proposed workers, by name, have received all required medical exams and have been properly trained and certified for asbestos removal work, respirator use and appropriate Massachusetts DLS, EPA and OSHA standards.

3. Notarized statement that workers are physically fit and able to wear and use the type of respiratory protection proposed for the project. Notarized certification signed by an officer of the abatement contracting firm that exposure measurements, medical surveillance and worker training records are being kept in conformance with 29 CFR 1926.

4. Written plan of action and standard operating procedures (HASP) to include: location and layout of decontamination areas; sequencing of asbestos work; detailed schedule of work activities by date and interface with other project activities which affect work performance; methods used to assure safety and security; worker protection and exposure monitoring; contingency and emergency evacuation procedures; detailed description of methods to be employed to control pollution; waste handling procedures.

5. Written respiratory protection program specifying level of protection intended for each operation required by the project and details of daily inspection and maintenance elements.

6. Copies of the U.S. EPA, State and local asbestos removal pre-notification forms. If applicable, lists and copies of all permits, licenses, or manifests which will be applied for and used.

7. Name, location and applicable approval certificates for primary and secondary landfill for disposal of asbestos-containing or asbestos contaminated waste. Name, address and licenses number(s) of hauler permitted to transport waste. (Submit copies of completed manifests upon disposal).

The Contractor must provide copies of daily inspection and record logs upon request of the Engineer, at any time during project. This information will include but is not limited to work area entry data, respirator inspections and maintenance, HEPA-exhaust inspections and maintenance and other work applicable activities or reports of accidents or unusual events.

ITEM 182.2 (Continued)

METHOD OF MEASUREMENT

ITEM 182.2 will be measured for payment by the FOOT for the complete removal and disposal of the asbestos containing material.

BASIS OF PAYMENT

Item 182.2 will be paid for at the Contract unit price per FOOT, which price shall include all labor, materials, tools, equipment, and all incidental costs required to complete the work specified above and as required by the Engineer.

No separate payment will be made for the protection of general public, private property, the proper inspecting and testing of the material, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 183.1 TREATMENT OF CONTAMINATED GROUNDWATER GALLON

This Item addresses the treatment and disposal of contaminated groundwater encountered during excavation operations. The work generally consists of furnishing the materials, equipment, labor, services, testing/sampling, waste characterization, transportation, disposal, permits and agreements necessary to perform the work required for the collection, treatment and disposal of contaminated groundwater.

The Contractor is advised that contaminated groundwater may be encountered during dewatering activities. The levels and nature of contamination may vary depending on location and/or depth. No data has been provided in this specification indicating the types of contaminants that may be found in groundwater encountered during this work. It will be the responsibility of the Contractor to ensure that water removed during dewatering operations is treated and disposed of in accordance with all applicable laws and regulations and in accordance with this specification.

The Contractor shall monitor the quantity of groundwater collected for treatment using an in-line totalizer flowmeter or an alternate method approved by MassDOT. The Contractor shall, at all times, minimize the quantity of groundwater removed from the excavations. All groundwater determined to be contaminated will be managed in accordance with all applicable local, state and federal regulations.

It is not the intent herein for the Department to design for or specify to the Contractor which particular treatment is to be used, if necessary. Rather, it is the Department's intent to provide guidance to the Contractor for informational and bidding purposes only. It is, therefore, the Contractor's responsibility to use a treatment method to allow him/her to meet any and all laws, regulations, policies, guidelines and permit requirements. Treatment of contaminated groundwater for dewatering operations is generally performed using a mobile treatment trailer equipped with one or more granular-activated carbon (GAC) canisters, although other techniques are also used.

It is likely that treatment of the contaminated groundwater using granular-activated carbon will be required to complete the work under this Contract. The Methods described under Item 183.1 provides for the identification, testing, management and treatment or disposal of contaminated groundwater and shall be implemented, at a minimum and as necessary by the Contractor via Methods under Item 183.1.

The overall handling and management of contaminated groundwater is regulated under the provisions of 310 CMR 40.0000, 314 CMR 3.00 and 5.00, NPDES and other applicable laws. The unpermitted discharge of contaminated dewatering effluent into the environment (storm drain, surface water body, onto the ground) is a violation of federal and state laws and regulations. Should dewatering of contaminated groundwater be necessary, approvals must be sought from the appropriate federal, state, or local regulatory jurisdiction. The USEPA will not specify a treatment system or method, but normally requires that the treated discharge meet Massachusetts Drinking Water Standards.

ITEM 183.1 (Continued)

The discharge standards are normally met by treating the dewatered groundwater through granular-activated carbon canisters, or similar techniques. Longer term discharges to surface waters or storm drains, and any discharges to the ground, require approval and/or issuance of a permit from the DEP Division of Water Pollution Control. The Contractor shall be responsible for applying for, paying all fees for and obtaining all permits required for treatment and/or disposal of contaminated groundwater. Additional requirements may be mandated by local/regional sewer authorities for discharge to sanitary sewer or Publicly Owner Treatment Works (POTW). Copies of permit applications and correspondence from federal and state agencies and sewer authorities shall be supplied to the Engineer prior to dewatering activities.

EPA regulations published in the Federal Register on September 9, 2005 (70 FR 53663) require a National Pollutant Discharge Elimination System (NPDES) Remediation & Miscellaneous Contaminated Sites General Permit (RGP) for all contaminated construction site dewatering activities in Massachusetts (MAG910000) that will involve the discharge of water to classes of receiving waters designated in the Massachusetts Water Quality Standards (314 CMR 4.00). The application requires that operators of proposed new discharges seeking coverage under this general permit submit a Notice of Intent (NOI) to EPA New England post-marked at least 14 days prior to commencement of discharge. The Contractor is solely responsible for applying for and obtaining coverage under the NPDES Remediation General Permit from EPA and, if applicable, DEP, including the costs associated with sampling and analysis of groundwater and any application fees. The Contractor is required to submit a completed copy of the NOI to the Engineer and the Director of Environmental Programs, Construction Division, 10 Park Plaza, Boston, prior to commencement of discharge.

Upon permanent cessation of the discharges authorized by the RGP, the Contractor shall be responsible for submitting a Notice of Termination (NOT) to EPA New England within 30 days of the permanent cessation. The Contractor is required to submit to MassDOT a completed copy of the NOT within 14 days of the permanent cessation of the discharges authorized by the RGP. All costs and fees associated with the submission of the NOT will be the responsibility of the Contractor.

The Contractor shall be responsible for adhering to regulations, specifications, and recognized standard practices related to contaminated groundwater handling during dewatering activities. MassDOT shall not be responsible at any time for the Contractor's violation of pertinent local, state or federal regulations or endangerment of laborers and others. The Contractor shall comply with all rules regulations, laws, permits and ordinances of all authorities having jurisdiction including, but not limited to, Massachusetts Department of Environmental Protection (DEP), the U.S. Environmental Protection Agency (EPA), Federal Department of Transportation (DOT), Massachusetts Water Resources Authority (MWRA), the Commonwealth of Massachusetts and other applicable local, state and federal agencies governing this work.

ITEM 183.1 (Continued)

The Contractor shall be responsible for determining compliance with the requirements of any permit and for any sampling, testing, and disposal required in connection with said permits. MassDOT and the City/Town reserve the right to collect additional samples of dewatered groundwater to determine the Contractor's compliance with the Permit's requirements. All laboratory testing is to be performed by a DEP certified laboratory for all parameters being tested. Copies of all field and laboratory testing results, reports, etc. required by the permits must be supplied to the Engineer. MassDOT, DEP, and the permit-granting agency, where applicable, reserve the right to collect additional samples of discharged groundwater to verify compliance with permit requirements.

For the purpose of these specifications and to establish a basis for the bid, it is anticipated that granular-activated carbon will be the treatment medium for dewatered contaminated groundwater. The bidder shall factor into the payment item all costs associated with the testing and analyses that may be required by the permitting agency. In addition, any laboratory testing of groundwater is to be performed by a DEP certified laboratory for the parameters being tested. Copies of all field and laboratory testing results will be supplied to the Engineer. Bid price shall also include full compensation for labor, materials, maintenance, mobilization, rental and other related costs. Item 183.2 will be used for disposal of used granular-activated carbon canisters.

SUBMITTALS

Prior to initiating work, the Contractor shall submit an excavation dewatering plan to the MassDOT that includes a detailed description of the approach to dewatering, a description of methodology for sealing the excavation to minimize infiltration of groundwater, if deemed applicable to the work, anticipated treatment, discharge points, sampling frequency, required permits, transporters and waste facilities complete with license numbers, permit numbers, contact person, and address and telephone number that the Contractor plans to utilize for waste disposal. The plan shall be submitted for the record.

The Contractor shall submit to MassDOT for review, the proposed methods for dewatering and groundwater treatment and disposal for the various portions of the work to be done. The review shall be for methods only. The Contractor shall remain responsible for the maintenance, performance, structural integrity and safety of the systems installed for this work as well as regulatory compliance of the applicable local, state and federal discharge standards. The contractor shall provide all groundwater sampling and analyses, results and reports required by all applicable local, state and federal agencies. The Contractor shall submit to MassDOT for review all plans and documents that must be submitted to the EPA and DEP, including NOI, NOT, treatment system analytical reports and correspondence. Copies of all permits and approvals and lab analyses and test results associated with groundwater treatment and disposal must be submitted to MassDOT within 3 days of receipt by the Contractor.

ITEM 183.1 (Continued)

ESTABLISHMENT OF TREATMENT PROCEDURE

Since concentrations of contaminants in groundwater cannot be easily assessed in the field, all groundwater extracted from the ground will be considered contaminated and will be initially pumped and stored into open settling tank(s) or a fractionation tank until it can be sampled and analyzed, unless otherwise directed by MassDOT. The Contractor will perform initial sampling and analyses of the groundwater to determine the need for a permit to dispose of contaminated groundwater. Based on the results of the initial sample analysis, which must be provided to the Engineer within twenty-four (24) hours of the time the samples are received by the laboratory, the Contractor will determine the necessity for treatment(s) and disposal procedures. Sampling must also be performed to meet applicable discharge criteria as set by the appropriate regulatory agencies for the permit obtained for disposal. All discharges must meet regulatory standards set forth in the permits required for discharge. For the purposes of the bidding process, it is anticipated that the treatment system will consist of sedimentation tanks, an oil water separator and liquid-phase granular activated carbon as the primary on-site treatment medium for dewatered contaminated groundwater. MassDOT may require additional treatment processes if such is determined necessary during the groundwater testing procedure. The Contractor shall integrate the additional treatment process into the treatment system, if necessary.

The Contractor shall provide all labor, equipment and appurtenances required to treat the groundwater, subject to the approval of MassDOT. Groundwater stored and tested but not requiring treatment or off-site disposal shall be discharged to a location subject to the approval of MassDOT without payment to the Contractor.

TREATMENT UNITS

The Contractor shall furnish all labor and materials, and shall install and operate temporary groundwater treatment and disposal system(s) as necessary to treat contaminated groundwater pumped from excavations during construction activities under the Contract. Such systems shall be capable of treating groundwater to meet applicable discharge criteria as set by the appropriate regulatory agencies.

The Contractor or their Environmental Consultant shall operate, maintain and modify the selected treatment system, and conduct the necessary monitoring and reporting of influent, midpoint and effluent results, as required by the discharge permit for the disposal option selected.

ITEM 183.1 (Continued)

METHOD OF MEASUREMENT

Provide a treatment system that meets permit discharge requirements, mobilize it to the site, provide copies of laboratory analytical data indicating that the system is performing appropriately to meet permit requirements, and demobilize it from the site. This includes management and disposal of wastes generated during treatment prior to discharging such as activated carbon, etc. Work under Item 183.1 is based upon the number of gallons disposed or contaminated groundwater pumped through the granular-activated carbon (Item 183.2) as the medium for the treatment of contaminated groundwater that is found in pipe trenches, manhole excavations, catch basin excavations, that need to be dewatered.

BASIS OF PAYMENT

Payment shall be made at the unit price bid per gallon of groundwater pumped, stored, treated as needed and tested as required by discharge permits and regulatory requirements, which price shall be full compensation for all necessary labor and materials, mobilization, maintenance, demobilization of the appropriate unit(s), freight, rental costs, field and laboratory testing costs and permits. Costs associated with the disposal of granular-activated carbon shall be covered under Item 183.2.

ITEM 183.2 DISPOSAL OF GRANULAR-ACTIVATED CARBON POUND

GENERAL

Work under Item 183.2 is based upon the disposal of used granular-activated carbon as the treatment medium for contaminated groundwater (Item 183.1) that is found during excavations in which contaminated groundwater is encountered.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Payment shall be made at the unit price bid per pound of carbon that is properly disposed and replaced, as necessary, to meet treated water discharge requirements during dewatering operations at the site. Payment for Disposal of Granular Activated Carbon shall include compensation for all labor, equipment, materials, permits, characterization, sampling and on-site or laboratory analysis as needed or required by permits, for replacement and disposal of liquid-phase activated carbon for the on-site contaminated groundwater pumping, collection, treatment and treated water discharge system during the time period required to complete the work.

No payments shall be made for replacing carbon which is spent due to the Contractor's failure to remove floating petroleum product or excess sediments prior to the groundwater entering the carbon treatment units. All other costs associated with treatment of contaminated groundwater will be covered under Item 183.1- Treatment of Contaminated Groundwater.

ITEM 370.1 8 X 6 INCH TAPPING SLEEVE, VALVE AND BOX EACH

The work under this Item shall conform to the relevant provisions of Subsection 301 of the Standard Specifications, the Dighton Water District Rules and Regulations (See Document A00807) and the following:

The Contractor shall provide the anticipated construction sequencing to the Dighton Water District prior to any work affecting the water main.

Tapping sleeves shall be ductile iron, conform to applicable AWWA standards, and shall be 250 psi minimum working pressure. Provide with an epoxy protective coating system that conforms to AWWA C550 standards and NSF 61 certified for use in potable water systems.

The tapping valves shall comply with AWWA C515, have a 250-psi minimum working pressure, have a non-rising stem, designed for vertical burial and shall be furnished with a 2-inch square operating nut open left (counter-clockwise) unless specified otherwise by the local water department. Tapping valves shall be provided with an epoxy protective coating system that conforms to AWWA C550 standards and NSF 61 certified for use in potable water systems. Bolts and nuts for the bonnet and stuffing box shall be 316 stainless steel. Nuts and t-head bolts used for connecting fittings shall be Kor-10 steel or approved equal.

Installation shall be made under pressure and the flow of water through the existing pipe shall be maintained at all times. The entire operation shall be conducted by workmen thoroughly experienced in the installation of tapping sleeves and valves, and under supervision of qualified personnel furnished by the manufacturer.

The Contractor shall determine the location of the existing pipe to be tapped to confirm that interference will not be encountered from existing utilities or a joint or a fitting. No tap shall be made closer than 3 feet from a pipe joint.

Contractor shall install, maintain, secure, and remove all excavation support required to complete the installation of tapping sleeves. Pipe upon which tapping sleeve is to be installed shall be thoroughly cleaned of all foreign matter with scraping tools and wire brushes to a minimum of six inches beyond each side of the sleeve. The cleaned area shall be washed with a hypochlorite solution. The interior of tapping sleeve and tapping valve shall also be washed with hypochlorite solution in accordance with AWWA C651.

Tapping sleeves and valves with boxes shall be set vertically and squarely centered on the pipe to be tapped. Adequate support shall be provided under the sleeve and valve during the tapping operation. Thrust blocks shall be provided behind all tapping sleeves. The supporting earth around and under the valve and sleeve shall be compacted. After completing the tap, the valve shall be flushed to ensure that the valve set is clean.

Before backfilling, all exposed portions of any bolts used to hold the two halves of the sleeve together shall be heavily coated with two coats of bituminous paint.

ITEM 370.1 (Continued)

Valve Boxes

Valve boxes shall be two-section, cast iron, heavy pattern adjustable type, with cast iron cover. The upper sections shall have a bottom flange of sufficient bearing area to prevent settling. The bottom section shall enclose the valve stuffing box and operating nut. Boxes shall be of lengths adapted to 5-foot pipe cover or more and have a minimum of 6 inches of overlap in the most extended position. Covers shall have the word "WATER" cast in the top and shall be held in place with bronze bolts.

METHOD OF MEASUREMENT

Item 370.1 will be measured for payment by the each tapping sleeve, valve, and box installed, complete in place.

BASIS OF PAYMENT

Item 370.1 will be paid for at the Contract unit price per each, which price shall include all labor, material, equipment, and incidental costs required to complete the work.

ITEM 470.99 HOT MIX ASPHALT BERM – MODIFIED TON

The work under this Item shall conform to the relevant provisions of Subsection 470 of the Standard Specifications and the following:

Hot Mix Asphalt Berm - Modified, shall be constructed by means of an approved extrusion machine in conformance with the dimensions and at the locations shown on the Plans.

Prior to placing the HMA berm, the surface shall be swept clean and asphalt emulsion shall be applied to the surface.

METHOD OF MEASUREMENT

Item 470.99 will be measured for payment by the ton, complete and in place. Measurements will be taken along the lowest exposed edge of berm.

BASIS OF PAYMENT

Item 470.99 will be paid at the Contract Unit Bid Price per Ton, which price shall include all labor, materials, tools, equipment and all incidental costs required to complete the work.

ITEM 504.2 GRANITE CURB TYPE VA4 – SPLAYED END EACH

The work under this Item shall conform to the relevant provisions of Section 500 of the Standard Specifications and the following:

Granite curbing shall conform to Section M9.04 of the Standard Specifications and as shown on construction detail drawing in plan set.

Splayed Granite Curb shall have a beveled, mountable edge as shown on the drawings and shall be used in straight curb applications and curved radii of 10 feet or greater.

Splayed Granite Curb shall be used as a transition between granite curb type VB and sloped concrete bridge curb or as required by the Engineer. Typical length of the Splayed Granite Curb shall be 6 feet.

The curb shall be set at the line and grade required as shown on the plans.

METHOD OF MEASUREMENT

Item 504.2 will be measured for payment by each splayed end installed, complete and in place.

BASIS OF PAYMENT

Item 504.2 will be paid for at the Contract unit price per each, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

No separate payment will be made for sawcutting, excavation, concrete support, compacted gravel borrow bedding and backfill, but all costs in connection therewith shall be included in the Contract unit bid price.

ITEM 657. TEMPORARY FENCE FOOT

The work under this item shall conform to the relevant provisions of Subsection 644 of the Standard Specifications and the following:

Temporary fence, including foundations, moveable foundations, and supports, shall be furnished, installed, maintained, and removed under this item. The intent of this Item is to prevent access to wetland resources and work zone areas as noted on the plans within the project limits and as required by the Engineer.

Temporary fence shall be six (6) feet high, with top and bottom spring tension wire, chain link fabric, hardware conforming to MassDOT construction standard details, and shall be either new or used in good condition. Temporary Fence shall not be placed in the water. Materials that are not acceptable to the Engineer shall be removed and replaced at no additional compensation.

Temporary fence shall be installed as required by the Engineer. The fence shall be erected to secure the area affected before other work commences in the same area.

Posts shall be spaced at 10 feet maximum and shall not be buried. Disturbance to the subgrade is not permitted for installation of Temporary Fence. Gates shall be used at all locations that are to be opened on a regular basis.

METHOD OF MEASUREMENT

Item 657. will be measured for payment by the Foot of temporary fence installed complete in place.

BASIS OF PAYMENT

Item 657. will be paid at the Contract unit bid price per Foot, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

No separate payment will be made for all posts including end, corner, and intermediate brace posts, all gates and gate posts, removing and resetting of temporary fence or providing privacy screening, the replacement and/or restoration of fence damaged due to construction accidents, vandalism and/or any other manner, and final removal, but all costs in connection therewith shall be included in the Contract unit bid price.

The fence shall not be removed without prior approval of the Engineer.

ITEM 693. BOULDER REMOVED AND STACKED EACH

The work shall consist of removal and stacking of landscape boulder(s) onto the respective owner's property as indicated on the plans or as required by the Engineer.

Each boulder shall be carefully stacked on the owner's property at a location designated by the owner or beyond the work area as required by the Engineer.

Boulder abandoned by the property owner shall be removed and disposed of by the Contractor under Item 120.1.

METHOD OF MEASUREMENT

Item 693. will be measured for payment by each boulder removed and stacked.

BASIS OF PAYMENT

Item 693. will be paid for at the Contract unit bid price per Each, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

ITEM 698.3 GEOTEXTILE FABRIC FOR SEPARATION SQUARE YARD

The work under this item shall conform to the requirements of Subsection M9.50.0 of the Standard Specifications and the following:

The work under this item includes furnishing and installing geotextile fabric at work locations noted on the plans or as required by the Engineer.

Geotextile fabric shall be clean and new, Type 3 fabric application for subgrade or embankment stabilization. The fabric shall be listed on MassDOT's Qualified Construction Material List for the Type 3 application.

The fabric shall be installed without puckers on a smoothly graded surface and held in place to prevent movement when backfill is placed against it. Fabric shall overlap at least 12 inches at seams. Fabric shall be completely covered with backfill material of the type required at each installation. Excess fabric shall be removed from the project.

Geotextile that becomes torn or damaged shall be replaced or patched. The patch shall extend 3 feet beyond the perimeter of the tear or damage.

METHOD OF MEASUREMENT

Item 698.3 will be measured for payment by the Square Yard, complete in place. Overlaps will be measured as a single layer.

BASIS OF PAYMENT

Item 698.3 will be paid for at the Contract unit price per Square Yard, which price shall include all labor, materials, equipment, sewing and/or overlapping material, and all incidental costs required to complete the work.

ITEM 740. ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) MONTH

The work under this Item shall conform to the relevant provisions of Subsection 740 of the Standard Specifications and the following:

Two computer systems and printer system meeting minimum requirements set forth below including installation, maintenance, power, paper, disks, and other supplies shall be provided at the Resident Engineer's Office:

All equipment shall be UL approved and Energy Star compliant.

The Computer System shall meet the following minimum criteria or better:

Processor:	Intel, 3.5 GHz
System Memory (RAM):	12 GB
Hard Drive:	500 GB
Optical Drive:	DVD-RW/DVD+RW/CD-RW/CD+RW
Graphics Card:	8 GB
Network Adapter:	10/100 Mbit/s
USB Ports:	6 USB 3.0 ports
Keyboard:	Generic
Mouse:	Optical mouse with scroll, MS-Mouse compliant
Video/Audio	the computer system shall be capable of allow video calling and recording:
Video camera	shall be High Definition 1080p widescreen capable video calling and recording with built in microphone. The microphone system shall capture natural audio while filtering out background noise.
Audio	shall be stereo multimedia speaker system delivering premium sound.
OS:	Latest Windows Professional with all security updates
Web Browser:	Latest Internet Explorer with all security updates
Applications:	Latest MS Office Professional with all security updates Latest Adobe Acrobat Professional with all security updates Latest Autodesk AutoCAD LT Antivirus software with all current security updates maintained through the life of the contract.
Monitors:	Two 27" LED with Full HD resolution. Max. resolution 1920 x 1080
Flash drives:	2 (two) - 128GB USB 3.0
Internet access:	High Speed (min. 24 mbps) internet access with wireless router.

ITEM 740. (Continued)

The Multifunction Printer System shall meet the following minimum criteria or better:

Color laser printer, fax, scanner, email and copier all in one with the following minimum capabilities:

- Estimated volume 8,000 pages per month
- LCD touch panel display
- 50 page reversing automatic document feeder (RADF)
- Reduction/enlargement capability
- Ability to copy and print 11” x 17” paper size
- email and network pc connectivity
- Microsoft and Apple compatibility
- ability to overwrite latent images on hard drive
- 600 x 600 dpi capability
- 30 pages per minute print speed (color),
- 4 Paper Trays Standard (not including the bypass tray)
- Automatic duplexing
- Finisher with staple functions
- Standard Ethernet. Print Controller
- Scan documents to PDF, PC and USB
- ability to print with authenticated access protection

The Contractor shall supply a maintenance contract for next day service, and all supplies (toner, staples, paper) necessary to meet estimated monthly usage.

The Engineer's Field Office and the equipment included herein including the computer system, and printer shall remain the property of the Contractor at the completion of the project. Disks, flash drives, and card readers with cards shall become the property of the Department.

Compensation for this work will be made at the contract unit price per month which price includes full compensation for all services and equipment, and incidentals necessary to provide equipment, maintenance, insurance as specified and as directed by the Engineer.

ITEM 756.1 CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL PLAN **LUMP SUM**

The work under this item shall consist of the preparation and implementation of a Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) as required by a regulatory agency. This Item is applicable to projects that are not subject to the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) required by the National Pollutant Discharge Elimination System (NPDES) and applicable Construction General Permit (CGP) issued by the U.S. Environmental Protection Agency (EPA).

The work under this item shall also include the preparation, submission and implementation of a Flood Contingency Plan. The plan shall address the potential need for the temporary relocation of construction and auxiliary equipment situated within the 1% annual chance of flooding zone to designated upland locations above the Base Flood Elevation during flood events. The Flood Contingency Plan shall address any additional MassDEP-required information requirements, as applicable. The Flood Contingency Plan shall be submitted to the Engineer for review and approval at the same time as the CP/PP.

The CP/PP, at a minimum, shall include the following:

- Project & Site Description
- Project Site Contact Information
    - This shall include the phone number for the Contractor Site Superintendent, Project Manager and CP/PP Inspector(s).
- Qualifications of the CP/PP Inspector and documentation of qualifications
    - At a minimum, relevant personnel responsible for erosion and sedimentation control inspections shall have completed the EPA's construction inspection training course and obtained a certificate confirming completion of the training module, or have completed a third-party stormwater course which covers the minimum topics listed in Part 6.3.b of the CGP.
- Reference to and information to address permit Special Conditions relevant to the CP/PP contents
    - 401 Water Quality Certification (File No. 26-WW11-0001-APP)
        - Condition 3 - One individual with at least three years of experience with construction period erosion and sedimentation controls shall be employed to be responsible for Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) inspections (CP/PP Inspector). The name, contact information, and qualifications of the CP/PP Inspector shall be provided to MassDEP for review and approval with a copy to the Dighton Conservation Commission prior to the Pre-Construction Meeting required in Condition 5.

ITEM 756.1 (Continued)

- Condition 7 - A CP/PP shall be developed and implemented as required by 314 CMR 9.06(6)(a)8. A minimum of 14 days prior to the start of work, the proponent shall submit the CP/PP for review and approval. If the U.S. Environmental Protection Agency (EPA) Construction General Permit (CGP) applies, the Stormwater Pollution Prevention Plan (SWPPP) may serve as the CP/PP, providing it includes the measures required to be in the CP/PP per these Special Conditions, in addition to the measures specifically required by the CGP. Any subsequent changes to the approved CP/PP (defined herein as including the construction period SWPPP if applicable) must be approved by MassDEP.
- Condition 8 - Training regarding erosion and sedimentation controls is required. The CP/PP Inspector and any other relevant personnel responsible for erosion and sedimentation controls shall complete the EPA CGP Inspector Training, or other training that meets the CGP requirements, as well as complete a comprehensive review of the approved CP/PP. Proof of completion of the training shall be submitted to MassDEP prior to the start of work.
- Condition 9 - The CP/PP shall identify, but shall not be limited to, staging and laydown areas in relation to LUO and Salt Marsh, proposed dewatering methods and locations, proposed stockpile locations and their proximity to catch basins or other drainage conveyances that discharge to wetland resource areas, and the location of construction-period erosion and sedimentation controls. Stockpiles shall be located no less than 25 feet from LUO, Salt Marsh, catch basins, or other drainage conveyances that discharge to LUO or Salt Marsh.
- Condition 11 – Prior to the start of work, approved erosion and sedimentation control measures shall be installed per the approved CP/PP and as applicable, the manufacturer specifications. Erosion and sedimentation control measures may consist of, but are not limited to, silt fence, staked straw bales, silt/turbidity curtains, compost filter tubes, etc.
- Condition 18 - Under the direction of the CP/PP Inspector, inspection and maintenance of erosion and sediment controls in active work areas may be performed by both the Contractor and RE or other MassDOT project staff. Maintenance is the responsibility of the Contractor; however, the permittee shall be ultimately responsible for erosion and sedimentation control failure. The RE and/or contractor shall immediately notify MassDEP and the Dighton Conservation Commission if any unauthorized discharges to LUO or Salt Marsh occur.

ITEM 756.1 (Continued)

- Condition 19 - CP/PP inspections shall occur at least once every seven calendar days and within 24 hours of a storm event that produces 0.5 inches or more of rain within a 24-hour period, or at a more stringent frequency if the CP/PP requires.
- Condition 20 - Copies of CP/PP Inspection and Maintenance Log Forms shall be submitted to MassDEP within 14 days upon request.
- Condition 21 - Disturbed areas shall be stabilized immediately after activities have permanently ceased or will be temporarily inactive for 14 or more calendar days. The installation of stabilization measures shall be implemented as soon as practicable, but no later than 14 calendar days after disturbed areas have been inactive.
- Condition 22 - Work within LUO shall be conducted in low or no-flow conditions to the extent practicable. Notice shall be provided to MassDEP and the Dighton Conservation Commission within 24 hours prior to the commencement of dewatering. Dewatering methods and location(s) shall be approved by the RE or other project staff with knowledge of these practices prior to use to ensure consistency with the approved Control of Water Plan, and shall be documented in the CP/PP. There shall be no discharge of untreated dewatered stormwater or groundwater to LUO or Salt Marsh. Any discharges shall be visibly free of sediment.
- Condition 23 - Additional erosion and sedimentation control materials shall be stored on-site at all times for emergency and routine replacement. Materials shall be kept covered, dry, and accessible at all times. The CP/PP Inspector and RE shall be responsible for anticipating the need for and installation of additional erosion and sedimentation controls and shall have the authority to require additional erosion control measures to protect wetland resource areas beyond what is shown on the plans if field conditions or professional judgment dictate that additional protection is necessary.
- Condition 25 - Any storm drains with potential to receive discharge from stockpiled materials or construction operations shall be managed to inhibit the inflow of sediment while not increasing the likelihood of roadway flooding during periods of precipitation. The CP/PP shall specify measures to implement this. Filter fabric stretched under storm drain inlet grates are not acceptable for this purpose.
- Condition 26 – Stockpiles shall be located no less than 25 feet from LUO, Salt Marsh, catch basins, or other drainage conveyances that discharge to LUO or Salt Marsh.

ITEM 756.1 (Continued)

- Condition 27 – The contractor shall have designated washout areas for concrete equipment that will be comprised of impermeable material and sized to contain project concrete wastes and wash water. Concrete wash out areas shall be located no less than 50 feet from LUO, Salt Marsh and catch basins or other drainage conveyances that discharge directly or indirectly to LUO or Salt Marsh.
- Condition 28 – Refueling, washing, and cleaning of vehicles and other construction equipment shall not take place within 50 feet of LUO or Salt Marsh and any wash water shall be contained such that it does not drain toward LUO or Salt Marsh. MassDEP shall explicitly approve in writing any deviation to this condition for oversized stationary vehicles.
- Condition 29 – The contractor shall have spill containment kits on site. In the event of a release of fuels and/or oils, the local fire department, MassDEP Emergency Response and MassDEP Wetlands Program Highway Unit shall be immediately contacted, and in addition, the MassDEP Bureau of Waste Site Cleanup shall be notified per the requirements of the Massachusetts Contingency Plan, 310 CMR 40.0000.
- Condition 32 - A temporary shielding or containment system shall be in place beneath the bridge structure prior to removal to prevent debris from falling into the water below. In the event any debris accidentally enters Muddy Cove Brook, it shall be immediately retrieved. Notice shall be provided to MassDEP if debris enters the river and that it has been removed with photo-documentation (if practicable) submitted by email.
- Condition 38 - All temporary erosion and sedimentation controls shall be removed at the conclusion of work once the surrounding area has achieved final stabilization.
- Condition 39 - Compost or mulch used as an erosion or sedimentation control may be spread evenly in upland areas at a depth of no more than two inches and shall not be spread in Salt Marsh or LUO.

ITEM 756.1 (Continued)

- Local Order of Conditions under the Dighton Wetlands Protection Bylaw
  - Section II – Condition 9 – A copy of the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) submitted to EPA shall be submitted to the Dighton Conservation Commission for review and approval prior to beginning work.
  - Section II – Condition 10 – A signed copy of the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) shall be provided to the Conservation Commission prior to the pre-construction meeting and a copy shall be kept on-site.
  - Section II – Condition 12 – The contractor shall follow the Erosion & Sediment Control general principles and Erosion & Sediment Control Sequence as Construction Period Pollution Prevention Plan during all construction phases.
  - Section III – Condition 1 – Appropriate erosion control devices shall be in place prior to the beginning of any phases of construction, and shall be maintained during construction in the wetland areas and buffer zone. The erosion control specifications provided in the Notice of Intent and the erosion control provision in the Order will be the minimum standards for this project; additional measures may be required by the Commission. These will be maintained until the engineer and a member or agent of the Conservation Commission agree that they are no longer needed, at which time they will be removed, using mutually satisfactory removal procedures.
  - Section III – Condition 3 – The applicant shall designate an CP/PP Inspector to oversee any emergency placement of controls and regular inspection or replacement of erosion and sedimentation control devices. The name and phone number of the inspector must be provided to the Commission in the event that this person has to be contacted, due to an emergency at the site, during any 24-hour period, including weekend. This person shall be given authority to stop construction for erosion control purposes. The erosion control monitor will be required to inspect all such devices and oversee cleaning and the proper disposal of waste products. Cleaning shall include removal of any entrapped silt.
  - Section III – Condition 4 - An adequate stockpile of erosion control materials shall be on site at all times for emergency or routine replacement and shall include materials to repair or replace silt fences, compost filter tubes, erosion control blankets, stone riprap, filter berms or any other devices planned for use during construction.

ITEM 756.1 (Continued)

- Section III – Condition 6 - Erosion controls should be inspected every 7 days in accordance with the CP/PP, and repaired, reinforced or replaced as necessary.
- Section III – Condition 7 – Within thirty days of completion of construction on any given portion of the project, all disturbed areas in the completed portion of the site shall be permanently stabilized with rapidly growing vegetative cover, using sufficient top soil to assure long-term stabilization of disturbed areas. A minimum of four to six inches of organic top soil, if necessary, and a USDA Natural Resource Conservation Service-approved seed mixture should be used in accordance with the measures outlined in "Vegetative Practices in Site Development: Massachusetts Conservation Guide, Volume II", or other acceptable stabilization method. Continued maintenance of this area, in a manner, which assures permanent stabilization and precludes any soil erosion, shall be the responsibility of the Town of Dighton. This condition will not expire with the issuance of a Certificate of Compliance.
- Section III – Condition 8 – Subsequent to seeding, disturbed areas will be covered with a compost blanket, seedless straw mulch, erosion control blanket or netting or other suitable material in order to provide an adequate surface protection until seed germination. Preference should be given to compost blankets.
- Section III – Condition 9 – Cement trucks shall not be washed out in any wetland resource or buffer zone area, or into any drainage system. Any deposit of cement or concrete products into a buffer zone or wetland resource area shall be immediately removed.
- Section III – Condition 10 – Erosion and sedimentation control devices shall be inspected after each storm event and repaired or replaced as necessary. Any accumulated silt adjacent to the barriers shall be removed.
- Section III – Condition 11 – All stockpiles of soils existing for more than one day shall be surrounded by a row of entrenched silt fence, and shall be covered. Silt fence must be removed when the stockpile is cleared. If the contractor places stockpiles is unpaved areas, upon removal of stockpiles, the site shall be de-compacted, repaired with compost blanket, and seeded with an appropriate seed mix.

ITEM 756.1 (Continued)

- Section III – Condition 12 – All exposed soil finish grade surfaces shall be immediately landscaped and stabilized, or loamed, seeded and mulched with a layer of mulch straw. Where necessary, the loam and seeding shall be held in place with jute netting. Outside of the growing season, exposed soil finish grade surfaces shall be stabilized with a layer of mulch hay until climate conditions allow for seeding. During construction, any area of exposed soils that will be left idle for more than 30 days shall be stabilized with a layer of mulch hay or other means approved by the Conservation Commission. Temporary stabilization methods may include, but not be limited to, compost blankets, hydro-seeding, straw mats, jute netting, sod, or other Commission approved method.
- Section III – Condition 13 – Erosion control devices shall remain in place and properly functioning until all exposed soils have been stabilized with final vegetative cover and the Conservation Commission and/or its Administrator has authorized their removal.
- Section III – Condition 14 – No equipment will operate waterward of the perimeter erosion controls.
- Section III – Condition 15 – Grading shall be accomplished so that runoff shall not be directed to the property of others without mitigation as described in the project plans. This project shall not increase runoff, nor cause flood or storm damage, to abutters or the property of others.
- Section III – Condition 16 – Placement of loam, or compost blanket, and seeding will occur within (30) days of final grading. Barren areas should be stabilized by seeding if work on the project is interrupted for more than 90 days, unless the 90 days are in the winter. A nurse crop seed mix shall be spread if it's winter. If this condition should occur, the applicant shall request a determination from the Commission as to whether seeding or an alternative measure should be conducted. Seed stock to restore project-denuded areas shall emphasize the natural flora and be of proven value to local wildlife.
- Section IV – Condition 2 - All equipment shall be inspected regularly for leaks. Any leaking hydraulic lines, cylinders or any other components shall be fixed immediately.

ITEM 756.1 (Continued)

- Section IV – Condition 4 – All equipment shall be operated, parked, and maintained so as to limit alterations of wetlands and buffer zone to those areas clearly identified on the plans and demarcated in the field by the flagging and construction barriers installed pursuant to approved plans. No equipment is to enter or cross-wetland resource areas at any time unless the location of disturbance is marked on the plans referenced in this Order and flagged in the field.
- Section IV – Condition 6 – Equipment for fuel storage and refueling operations shall be located in an upland area as far away from the wetland resource areas as possible.
- Section IV – Condition 7 – There will be no stockpiling of soils within the resource areas. The contractor is responsible for coordinating and securing a staging area and it will be the contractor's responsibility to identify the appropriate location for stockpiling. The Conservation Department is to be notified with a construction plan as to the location of this stockpile area.
- Section IV – Condition 8 – The Contractor shall be responsible for following the Construction Period Pollution Prevention Plan.
- Section IV – Condition 9 – Stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after the construction activities in that portion of the site that have temporarily or permanently ceased.

- Essential Fish Habitat – Federal Interagency Comment Form
  - Work will be conducted from the paved surface of Pleasant Street when feasible.
  - All disturbed areas will be restored to pre-existing condition post construction.
  - Turbidity curtains will be installed around dewatering areas and around any additional work areas.
  - Any in-water work will take place behind turbidity controls.

- Construction Sequencing/Phasing
- Erosion Prevention, Sediment Control, and Best Management Practices (BMP s) to be implemented
- Maintenance measures and intended timeline to address maintenance and corrective actions for implemented Erosion Prevention Measures, Sediment Control Devices, and BMPs

ITEM 756.1 (Continued)

- Anticipated inspection schedule and sample inspection report form
    - Use the EPA's Site Inspection Report Template found on the EPA's website.
- Site Plans
    - This shall depict, at minimum, the project limits, locations of construction phase erosion prevention measures, construction phase sedimentation control measures, limits of disturbance, staging and laydown areas, proposed dewatering locations and proposed stockpile locations. Depict existing jurisdictional wetland resource areas, drainage conveyances and stormwater treatment features.

The Contractor shall prepare the CP/PP, and update/revise as needed upon changes in site conditions, relevant project personnel, construction phase controls, schedule changes, revised work, regulations, and construction methodologies. The Contractor shall submit the CP/PP to the Engineer for approval at least thirty (30) days prior to prior to commencement of any project related activity that disturbs land, including clearing and grubbing. Submission of the CP/PP to a regulatory agency for review and approval may also be required by a Special Condition associated with a permit issued under the Wetlands Protection Act, or Section 401of the Clean Water Act and their implementing Regulations. It is the responsibility of the Contractor to ensure the CP/PP is submitted to reviewers in a timely manner to support the construction schedule.

It is the responsibility of the Contractor to comply with the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Army Corps of Engineers Section 404 Permit and other environmental permits applicable to the project, and to include in the CP/PP the methods and means necessary to comply with applicable conditions of said permits.

Inspection frequency shall be once every seven calendar days and within 24 hours of a storm event that produces 0.5 inches or more of rain within a 24-hour period. The inspections shall be performed by an individual that meets the qualifications specified in the permits and proof of the inspector's qualifications shall be included as an Appendix in the CP/PP. CP/PP inspection reports shall be completed and distributed to the Resident Engineer within 24-hours of each inspection. Special conditions associated with permits may also require submittal of reports to regulators at a certain frequency. Reports shall be maintained throughout the duration of the project. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector.

ITEM 756.1 (Continued)

The Contractor is responsible for preparation of the CP/PP, inspections, and associated reports. The Standard Specifications require adequate erosion and sedimentation control for the duration of the Contract. All control measures must be properly selected, installed, and maintained in accordance with manufacturer specifications, good engineering practices, and MassDOT standard specifications and special provisions. Contractor must maintain all control measures and other protective measures in effective operating conditions in accordance with the additional Special Provisions herein. If periodic inspections or other information indicates a control has been used inappropriately or is no longer adequate, it is the responsibility of the Contractor to replace or modify the control for site conditions at no additional cost to the Department.

BASIS OF PAYMENT

Item 756.1 will be paid at the Contract lump sum price, which price shall include all work detailed above, including CP/PP and Flood Contingency Plan preparation, required revisions, revisions/addenda during construction, inspections and reports.

Work under this item shall include acceptable completion of the CP/PP, Flood Contingency Plan, site inspections, and revisions/amendments required during construction. In addition, any erosion prevention or sediment control measures beyond those specified in bid items that are selected by the Contractor to facilitate and/or address the Contractor's schedule, methods and execution of the work shall be considered incidental to this item.

Payment of thirty (30) % of the contract price shall be made upon acceptance of the CP/PP and Flood Contingency Plan. Payment of forty (40) % of the contract price shall be made in equal installments over the expected duration of stormwater pollution prevention measures. Payment of the final thirty (30) % of the contract price shall be paid when final stabilization has been achieved (minimum of 75% total cover of disturbed vegetated areas with perennial ground cover).

ITEM 767.121 SEDIMENT CONTROL BARRIER FOOT

The work under this item shall conform to the relevant provisions of Subsections 670, 751, and 767 of the Standard Specifications and shall include the furnishing and placement of a sediment control barrier. Sediment control barrier shall be installed prior to disturbing upslope soil.

The purpose of the sediment control barrier is to slow runoff velocity and filter suspended sediments from storm water flow. Sediment barrier may be used to contain stockpile sediments, to break slope length, and to slow or prevent upgradient water or water off road surfaces from flowing into a work zone. Contractor shall be responsible for ensuring that barriers fulfill the intent of adequately controlling siltation and runoff.

Twelve-inch diameter (after installation) compost filter tubes with biodegradable natural fabric (i.e., cotton, jute, burlap) are intended to be the primary sedimentation control barrier. Photo-biodegradable fabric shall not be used.

For small areas of disturbance with minimal slope and slope length, the Engineer may approve the following sediment control methods:

- 9-inch compost filter tubes
- Straw bales which shall be trenched

No straw wattles may be used. Additional compost filter tubes (adding depth or height) shall be used at specific locations of concentrated flow such as at gully points, steep slopes, or identified failure points in the sediment capture line.

When required by permits, additional sediment barrier shall be stored on-site for emergency use and replacement for the duration of the contract.

Where shown on the plans or when required by permits, sedimentation fence shall be used in addition to compost filter tubes and straw bales and shall be compensated under that item.

Sediment control barriers shall be installed in the approximate location as shown on the plans and as required so that no excavated or disturbed soil can enter mitigation areas or adjacent wetlands or waterways. If necessary to accommodate field conditions and to maximize effectiveness, barrier locations may be shifted with approval from the Engineer. Barriers shall be in place prior to excavation work. No work shall take place outside the barriers.

MATERIALS AND CONSTRUCTION

Prior to initial placement of barriers, the Contractor and the Engineer shall review locations specified on the plans and adjust placement to ensure that the placement will provide maximum effectiveness.

Barriers shall be staked, trenched, and/or wedged as specified herein and according to the Manufacturer's instructions. Barriers shall be securely in contact with existing soil such that there is no flow beneath the barrier.

ITEM 767.121 (Continued)

Compost Filter Tube

Compost material inside the filter tube shall meet M1.06.0, except for the following: no peat, manure or bio-solids shall be used; no kiln-dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded.

Outer tube fabric shall be made of 100% biodegradable materials (i.e., cotton, hemp or jute) and shall have a knitted mesh with openings that allow for sufficient water flow and effective sediment capture.

Tubes shall be tamped, but not trenched, to ensure good contact with soil. When reinforcement is necessary, tubes shall be stacked as shown on the detail plans.

Straw Bales

Straw bales shall be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

Bales should be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. All bales should be either wire-bound or string-tied. Straw bales should be installed so that bindings are oriented around the sides (rather than along the tops and bottoms) of the bales in order to prevent deterioration of the bindings.

The barrier should be entrenched and backfilled. A trench should be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. The trench must be deep enough to remove all grass and other material which might allow underflow. After the bales are staked and chinked (filled by wedging), the excavated soil should be backfilled against the barrier. Backfill soil should conform to the ground level on the downhill side and should be built up to 4 inches against the uphill side of the barrier.

Each bale should be securely anchored by at least 2 stakes or re-bars driven through the bale. The first stake in each bale should be driven toward the previously laid bale to force the bales together. Stakes or re-bars should be driven deep enough into the ground to securely anchor the bales. For safety reasons, stakes should not extend above the bales but should be driven in flush with the top of the bale.

The gaps between the bales should be chinked (filled by wedging) with straw to prevent water from escaping between the bales. Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency. Wedging must be done carefully in order not to separate the bales.

When used in a swale, the barrier should be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment-laden runoff will flow either through or over the barrier but not around it.

ITEM 767.121 (Continued)

Sedimentation Fence

Materials and Installation shall be per Subsections 670.40 and 670.60 of the Standard Specifications and the following:

Sedimentation fence shall only be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

When used with compost filter tubes, the tube shall be placed on a minimum of 8 inches of folded fabric on the upslope side of the fence. Fabric does not need to be trenched.

When used with straw bales, an 8-inch deep and 4-inch wide trench or V-trench shall be dug on the upslope side of the fence line. One foot of fabric shall be placed in the bottom of the trench followed by backfilling with compacted earth or gravel. Stakes shall be on the down slope side of the trench and shall be spaced such that the fence remains vertical and effective.

Width of fabric shall be sufficient to provide a 36-inch high barrier after fabric is folded or trenched. Sagging fabric will require additional staking or other anchoring.

MAINTENANCE

Maintenance of the sediment control barrier shall be per Section 670.60 of the Standard Specifications or per the Stormwater Pollution Prevention Plan (SWPPP), whichever is more restrictive.

The contractor shall inspect the sediment barrier in accordance with relevant permits. At a minimum, barriers shall be inspected at least once every 7 calendar days and after a rain event resulting in 0.25 inches or more of rainfall. Contractor shall be responsible for ensuring that an effective barrier is in place and working effectively for all phases of the Contract.

Barriers that decompose such that they no longer provide the function required shall be repaired or replaced as directed. If the resulting berm of compost within the fabric tube is sufficiently intact (despite fabric decay) and continues to provide effective water and sediment control, barrier does not necessarily require replacement.

DISMANTLING & REMOVING

Barriers shall be dismantled and/or removed, as required, when construction work is complete and upslope areas have been permanently stabilized and after receiving permission to do so from the Engineer.

Regardless of site context, nonbiodegradable material and components of the sediment barriers, including photo-biodegradable fabric, plastic netting, nylon twine, and sedimentation fence, shall be removed and disposed off-site by the Contractor.

ITEM 767.121 (Continued)

For naturalized areas, biodegradable, natural fabric and material may be left in place to decompose on-site. In urban, residential, or other locations where aesthetics is a concern, the following shall apply:

- Compost filter tube fabric shall be cut and removed, and compost shall be raked to blend evenly (as would be done with a soil amendment or mulch). No more than a 2-inch depth shall be left on soil substrate.
- Straw bales shall be removed and disposed off-site by the Contractor. Areas of trenching shall be raked smooth and disturbed soils stabilized with a seed mix matching adjacent seeding or existing grasses (i.e., lawn or native grass mix).
- Sedimentation fence, stakes, and other debris shall be removed and disposed off-site. Site shall be restored to a neat and clean condition.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 767.121 will be measured and paid for at the contract unit price per foot of sediment control barrier which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of soil, and all incidental costs required to complete the work.

Additional barrier, such as double or triple stacking of compost filter tubes, will be paid for per foot of tube installed.

Barriers that have been driven over or otherwise damage by construction activities shall be repaired or replaced as directed by the Engineer at the Contractors expense.

ITEM 767.122 SEDIMENT BARRIER - COIR LOG FOOT

The work under this item shall conform to the relevant provisions of Subsections 101, 120, 170, and 751 of the Standard Specifications and the following:

Sediment Barrier - Coir Log shall be used in wet locations where the barrier will not require removal; when barrier is placed immediately adjacent to existing wetlands; as a check dam in swales; in locations as shown on the Drawings; and/or in locations required by the Engineer.

Permits, Codes and Regulations: The Contractor shall comply with all rules, regulations, laws and ordinances of the City/Town and State, and all other authorities having jurisdiction over the Project site. All labor, materials, equipment, and services necessary to make the work comply with such requirements shall be provided by the Contractor without additional cost to the Department.

MATERIALS

Coir Log: Coir Log shall be biodegradable coir fiber cylindrical bundles. Inner core shall be 100 percent unsorted, well-cleaned, coir fiber uniformly distributed along the length of the log. The stuffed density of the coir fiber shall be a minimum of 9 pounds per cubic foot.

Outer netting shall be constructed from a minimum 3-ply high strength coir bristle twine. The netting shall have 2-inch by 2-inch rhombic openings with hand-knotted junctions. The average breaking strength of the coir twine shall be a minimum of 80 pounds. Production tolerance for all the above parameters shall not exceed plus or minus 10 percent.

Coir log diameter shall be sized as shown on the drawings. Typical lengths are supplied in 10 foot or 20-foot increments. Coir logs or coir netting may not be cut to decrease length and shall maintain the physical properties as supplied by the Manufacturer.

Notched Wood Stakes: Stakes shall be oak or southern pine with dimensions as shown on the Drawings. Stakes shall be free from knots and other defects which would cause splitting and shall have a downward-angled notch as shown in the drawing.

Coconut Fiber Cord: Coconut fiber cord shall be two-ply braided cord with a breaking strength of 80 pounds, minimum 0.25-inch diameter.

Delivery, Storage and Handling: Protect materials from deterioration during delivery and while stored at site.

ITEM 767.122 (Continued)

CONSTRUCTION METHODS

General: Prior to initial placement of the coir log sediment barrier, the Contractor and the Engineer shall review locations specified on the plans and adjust placement, if required, to ensure that the coir log positioning and configuration will provide maximum sediment capture. Coir log sediment barrier(s) shall be in place prior to excavation work and no work shall take place outside the coir log barrier(s).

Installation: Coir logs shall be staked and secured as shown on the Drawings, as specified herein, and/or as recommended by the Manufacturer. The Contractor shall remove all underlying vegetation or debris to ensure that each coir log is securely in contact with soil, such that there is no flow beneath the log.

When used as a check dam barrier in a swale, the coir log shall be centered in the low point of the swale, perpendicular to the flow, with ends extending upslope. The log check dam barrier shall extend such that the log top elevation at the center of the swale is lower than the lowest elevation at the end log, to ensure that sediment-laden runoff will flow either through or over the coir log but not around it. The coir log check dam barrier shall have length such that no seams occur in the swale.

Notched wood stakes shall be driven parallel on both sides of the coir log at a typical spacing of 5 feet on center, unless site conditions warrant a closer spacing distance to ensure logs are firmly secured to the underlying soil. Stakes shall not extend more than 1 foot beyond the top of the log. Coir twine shall lash the logs to notched stakes in a cross-lashing fashion between stakes, throughout the length of the log barrier.

When utilizing multiple logs for sediment control, each coir log shall be laced together end-to-end (creating a seam) with coir twine to create a continuous length. End-to-end lacing may be completed before or after placement, to facilitate handling.

Maintenance: Maintenance of the coir log sediment barrier shall be per the Stormwater Pollution Prevention Plan (SWPPP).

The contractor shall inspect the sediment barrier in accordance with relevant permits. At a minimum, barriers shall be inspected at least once every 7 calendar days and after a rain event resulting in 0.25 inches or more of rainfall. The Contractor shall be responsible for ensuring that an effective barrier is in place and working effectively for all phases of the Contract. Under no condition shall sediment be allowed to accumulate more than 4 inches above the original ground line.

If a breach or other failure of the barrier occurs, the barrier shall be immediately restored. Repair shall include replacement of entire defective segments or for short breaches, revetment with additional coir logs, set directly adjacent to the downslope side of the breech. Revetment coir logs must overlap breech by a minimum of 2 feet on each side. The Engineer must approve breech repair means and methods as well as outcome.

ITEM 767.122 (Continued)

If the coir log sediment barrier is damaged by equipment or undergoes a significant washout or other major failure, the Contractor shall replace the component in its entirety, at the discretion and approval of the Engineer. Any delay in maintaining the barrier shall be cause to immediately suspend the work as provided for in Subsection 8.09: Delay and Suspension of Work.

Disposition/Removal**:** For naturalized areas, coir logs and wooden stakes may be left in place to decompose on-site. For areas where, in the determination of the Engineer, aesthetics are a concern, logs, errant coir fiber material, and stakes may require removal.

METHOD OF MEASUREMENT

Item 767.122 will be measured for payment by the FOOT of coir log, complete in place

BASIS OF PAYMENT

Item 767.122 will be paid for at the Contract unit bid price per FOOT, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

No separate payment will be made for coir log(s) follow-up maintenance and repairs, or disposal (if required), but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 942.124 **STEEL PILE HP 12 X 84** **FOOT**

The work under this item shall conform to the relvant provisions of Subsection 940 of the Standard Specifications and athe following:

The work shall include furnishing and installing HP 12 x 84 steel piles in accordance with these specifications, in conformity with the lines and grades shown on the plans, and as required by the Engineer.

The work shall also include applying bituminous coating to all Steel H-Piles at the north abutment only, as specified on the contract drawings.

The bituminous coating shall be a coal tar blend conforming to the requirements of MassDOT Standard Specification subsection M7.04.01.

Coal Tar Epoxy Coating shall not be applied to the South Abutment piles unless required by the Engineer.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 942.124 will be measured and paid for in accordance with Subsections 940.80 and 940.81 of the Standard Specifications respectively.

No separate payment will be made for the coating, but all costs in connection therewith shall be included in the Contract unit bid price.

ITEM 945.200 ROCK SOCKET EXCAVATION 2.0 FOOT DIAMETER FOOT

The work under this item shall conform to the relevant provisions of Subsection 945 of the Standard Specifications and the following:

The work under this item includes advancing temporary steel casing to top of competent bedrock, drilling rock socket, placing steel HP pile in rock socket, placing 2500 PSI concrete, backfilling remainder of drill hole with crushed stone, and removing temporary steel casing, if necessary, at locations noted on the plans, in the Special Provisions, or as required by the engineer.

Installation of the Steel H-Piles to be paid separately under Item 942.124 – Steel Pile HP 12 x 84.

MATERIALS

Concrete backfilled into rock sockets shall be 2500 PSI concrete, conforming to Section M4 of the Standard Specifications.

Crushed stone backfilled into rock sockets shall conform to Section M2.01.1 of the Standard Specifications.

CONSTRUCTION METHODS

South abutment battered piles shall be installed a minimum of 3 feet into competent bedrock, with a socket diameter of 24 inches, at locations noted on the plans.

Rock socket excavation is excavation that requires rock-specific tools and/or procedures to accomplish hole advancement, such as rock augers and core barrels. All excavation performed below the depth where rock socket excavation is authorized shall be considered rock socket excavation regardless of the density, strength, hardness, or changes in type or character of materials encountered.

The entire depth of rock socket shall be filled with 2500 PSI concrete. After placement of concrete, the annular space from top of rock socket to bottom of pile cap shall be filled with crushed stone. Concrete shall not be placed until Steel H-Pile is placed, centralized and secured in the pre-drilled hole.

METHOD OF MEASUREMENT

Item 945.200 will be measured for payment by foot of depth of completed 24 inch diameter rock socket excavation in locations noted on the plans, measured from the highest point of encountered rock within the excavation to the bottom of rock socket. Measurement shall be to the nearest 0.1 ft.

ITEM 945.200 (Continued)

BASIS OF PAYMENT

Item 945.200 will be paid at the Contract unit price per Foot, which price shall include all labor, materials, equipment, water control, removal from the site and disposal of excavated materials, drilling and casing equipment, procedures to excavate the rock socket to the required depths, concrete material for backfilling, crushed stone material for backfilling, and all incidental costs required to complete the work.

If larger diameter rock socket excavation than that specified on the plans is performed at the Contractor's option, no additional compensation will be provided to perform this oversized rock socket excavation.

ITEM 990.1 COFFERDAM STRUCTURE NO. D-08-002 LUMP SUM

The work under this Item shall conform to the relevant provisions of Subsections 140, 901, 950, 960 of the Standard Specifications and the following:

The work under this Item consists of constructing a cofferdam as required for the demolition of the existing abutments and wingwalls, extraction of existing piles; installation of new piles; and the construction of the new abutments and wingwalls, as shown on the Plans. Temporary shoring for any other work in this Contract shall not be included here, but shall be considered incidental to the Item for which it pertains unless specifically included in a separate Item.

The cofferdam shown on the Plans is intended to provide a pre-defined structure for bidding purposes only. The Contractor shall be solely responsible for reviewing, verifying and designing a cofferdam that is consistent with his/her means and methods. Design of the cofferdam shall be in accordance with allowable stress method conforming to AASHTO Standard Specifications and shall be stamped by a Professional Structural Engineer registered in the Commonwealth of Massachusetts.

Prior to any work, the Engineer must approve complete detailed drawings and complete calculations for the excavation support system in writing. The cofferdam shall include all sheeting, bracing, control of water, and other controls as necessary to provide excavation support for the demolition of the existing bridge and dry construction of the new bridge.

Control of water shall comply with all submittal and permitting requirements specified under Item 991.1 CONTROL OF WATER – STRUCTURE NO. D-08-002.

Streambed material within the cofferdam area shall be removed and re-laid in accordance with the requirements of Item 151.9 STREAMBED RESTORATION.

CONSTRUCTION METHODS

Cofferdam construction shall conform to the requirements of Subsection 140 and the following:

Cofferdam work shall be entirely enclosed within turbidity screens as specified herein. Portions of sheet piling and/or other materials used for cofferdams shall be left in place as shown on the Plans, or as required by the Engineer, and the cutoff portions shall be removed from the site.

Because of the shallow bedrock and proxitimy of battered piles at this site, portions of the cofferdam may require whalers and bracing, or required to be anchored into bedrock. It is the Contractor’s responsibility to avoid conflict with the battered piles. No separate payment shall be made for any such bracing or anchorage necessary to avoid the battered piles.

ITEM 990.1 (Continued)

Any part of the cofferdam that protrudes into the supporting soil below the bridge structure shall not be removed, but shall be cut off and left in place with no additional payment. Cofferdam shall be cut of a minimum of 2 feet below finish grade. Supporting soil shall be defined as all soil directly below the footing contained within a series of planes that originate at the perimeter of the bottom of the footing and project down and away from the footing at an angle of 45° from the horizontal.

It is expressly understood and agreed that the Contractor is of sole and exclusive responsibility for any damage to adjacent structures and installations either above or below ground that may be caused by the installation or removal of the earth retaining systems, failure or yielding of the earth retaining systems, or settling of the ground adjacent thereto, or other factors related to said earth retaining systems.

Installation of Turbidity Screens

With the exception of the channel between the abutments, where turbidity screens will not be required, at other locations where sheeting is to be installed in the waterway or excavation is to occur; where cofferdams are to be installed; or where other work is undertaken within the water, turbidity screens shall be installed for the full depth of water to completely enclose the work area unless the perimeter of the work is partially bounded by the shore or impermeable shore structure. Under those circumstances the turbidity screens shall occupy the remainder of the perimeter open to the channel. Installation and removal of turbidity screens shall be performed by skilled workers experienced in this type of operation. No work at a particular location in the channel shall be undertaken until the installation of turbidity screens has been completed.

The turbidity screens shall be deployed such that the navigational traffic in the channel will not be disrupted. The Contractor shall maintain the turbidity screens in good operating condition, acceptable to the Engineer and the Department of Environmental Protection, and repair or replace the screens, buoyancy equipment, tensile cable and ballast chain as needed to maintain the integrity of the enclosures.

Turbidity screens shall remain in place at individual work locations for a minimum of 24 hours after completion of the work including removal of sheeting, cofferdams and other temporary in-water construction.

Submittals

Submittals shall conform to the requirements of the Standards and the additional requirements specified herein. Catalogue cuts and shop drawings showing the materials to be used as turbidity screens and the means and methods for installation/removal of turbidity screens.

The Contractor shall submit shop drawings showing complete details designed and stamped by a Professional Structural Engineer registered in conformance with the laws of the Commonwealth of Massachusetts.

ITEM 990.1 (Continued)

BASIS OF PAYMENT

Item 990.1 will be paid for at the contract Lump Sum bid price, which price shall include all materials, tools, equipment, and all labor including but not limited to, constructing, maintaining and removing cofferdam, and all incidental items required to complete the work.

Turbidity screens (silt curtains) will not be separately measured for payment but all costs will be considered incidental to this Item.

Upon installation of the Cofferdam, 70 percent of the Contract unit price Lump Sum will be paid and the remaining 30 percent will be paid upon removal or cut off as specified on the Plans. Payment for control of water within the cofferdam shall be under Item 991.1. Payment for streambed restoration within the cofferdam shall be under 151.9.

ITEM 991.1 CONTROL OF WATER – STRUCTURE NO. D-08-002 LUMP SUM

The work under this Item shall conform to the relevant provisions of Sections 7.02 and 140 of the Standard Specifications, all applicable environmental regulations and permits, and the following:

The work shall include all work necessary for the control of water within the cofferdam to excavate, demolish the existing structure, and construct the new structure in the dry.

The work shall include designing, furnishing, installing, maintaining, operating, and removing temporary dewatering systems as required, to lower and control water levels. Work also includes properly disposing of pumped water, constructing, maintaining, observing, and removing of equipment and instrumentation for control of the system.

Water shall be discharged as specified in the environmental permits obtained for this project. No direct discharge shall be allowed into the Muddy Cove during the dewatering operations.

The demolition work shall be paid under and in accordance with the requirements of Item 115.1 DEMOLITION OF BRIDGE NO. D-08-002.

Any streambed material within the cofferdam area that is removed and re-laid, shall be paid under and in accordance with the requirements of Item 151.9 STREAMBED RESTORATION.

It is the responsibility of the Contractor to determine the need and extent of dewatering required, sedimentation and dewatering techniques and controls and submit method and materials he/she proposes to use for approval by the Engineer.

The Contractor is cautioned that flow rates in the river can increase substantially during and after storm events. The flow diversion and bypass pumping operations shall include contingencies for accommodating the increased flow during such events. At a minimum, the flow diversion and bypass pumping operations shall be designed to accommodate a 2-year storm event with a flow dischardge of 63 cubic feet per second. In the event of a storm exceeding this capacity, the contractor shall be responsible for stabilizing the work zone and allowing the excess flow to overflow the diversion/bypass mechanisms and flow through the work zone.

Plans and calculations for the water control measures shall be developed by the Contractor for this Item. These plans and calculations shall be prepared and stamped by a Professional Engineer registered in the Commonwealth of Massachusetts and shall be submitted for review and approval prior to the start of construction.

The Contractor shall use such equipment and shall perform the operations in such a manner that boiling or other disturbances of the soil in the foundation area will be prevented. The Contractor shall keep the excavated area dry by such means that the water will be prevented from entering the excavations and adversely affecting the stability of the foundation material or supporting soils.

ITEM 991.1 (Continued)

The pumping discharge shall not be allowed to enter directly into the water from the work areas, rather it shall be pumped to a temporary stilling basin or other appropriate treatment or containment device. The criteria that shall be implemented for the control of water must meet the following:

1. The enclosure shall be adequately sized and designed to achieve adequate water quality treatment/sedimentation trapping and prevent overtopping from dewatering and to provide the required filtering or containment.
2. The outlet from the containment structure shall not cause erosion of the surrounding area. An approved method of controlling erosion, such as an erosion control blanket, stone, etc. shall be used at the outlet.
3. Impacts from dewatering will be minimized by designing support walls for minimal leakage, covering trucks, barges and stockpiles during rain events and land contouring to limit surface runoff from leaving the dewatering site.
4. There shall be no placement of dewatering equipment within wetland or water resource areas.
5. Dewatered excavated material will be transported to the disposal site in accordance with local, state, and federal regulations.
6. The control of water containment structure shall be maintained as follows:
    a. Inspect at least twice daily during dewatering operations.
    b. Repair any damage immediately.
    c. Clean containment structure daily. Remove any debris immediately.
    d. Remove sediments when accumulated deposits reach a depth of 6 inches
    e. Dispose sediments outside of saltwater marsh area limits at a location approved by the Engineer.

The Contractor shall inspect the outlet daily and maintain the erosion controls at the outfall.

Placement of the dewatering stilling structure will be specified in the dewatering plan and will be submitted for approval by the Engineer. Pumping shall be conducted in a manner which will not adversely affect the freshly placed concrete within the excavation.

The Contractor shall provide and maintain pumps, pipes and other devices to promptly and continually remove and dispose of water from the excavation areas. The size and configuration of pumps and pipes shall be selected by the Contractor.

The Contractor is advised that the effectiveness of the water control method used will vary based on the field conditions and the time at which the actual excavation work is being performed. The Engineer shall to order the Contractor to stop all excavation operations when in his judgment the Contractor's water control operations are failing to produce adequate results or are posing a threat to the environment.

ITEM 991.1 (Continued)

BASIS OF PAYMENT

Item 991.1 will be paid at the contract Lump Sum bid price, which price shall include all labor, equipment, materials, and incidental costs required to complete the work, including the design for the dewatering and treatment operations, installation, piping, pumping, maintenance, subsequent removal of all related materials and equipment all as outlined above; and restoration of site shall be included in the lump sum contract price bid under this Item.

This work will include preparation of the Construction Dewatering Plan.

ITEM 994.01 TEMPORARY PROTECTIVE SHIELDING LUMP SUM
BRIDGE NO. D-08-002

The work under this Item shall consist of designing, furnishing, fabricating, erecting, maintaining, and subsequent removal of temporary side and deck underside protective shielding to provide for the safety beneath the bridge from falling debris, during the removal of the existing bridge and construction of the new bridge.

The Contractor is responsible for preventing any debris resulting from demolition, excavation or construction from falling into the river below. All precautions and costs to install netting, scaffolding, shielding, etc., necessary to assure this shall be considered incidental to this Item. Any debris that falls to the river below shall be immediately removed by the Contractor at his/her expense, as required by the Engineer.

The temporary shielding shall be placed in a manner as to prevent it from being blown out by the wind. If, in the opinion of the Engineer, the shielding is not secure, then the Contractor shall remove it and install it to the satisfaction of the Engineer at no additional cost.

The shielding shall at a minimum conform to the following:

1. The shielding must be in place before any demolition work is started. The Contractor must ensure that the shielding controls and captures all the debris and further ensure that it does not fall below into the waterway. No portion of the bridge superstructure shall be removed or constructed until the Protective Shielding is completely in place and the Contractor has approval from the Engineer to proceed.
2. Shielding shall extend the full length of the bridge and a sufficient distance above and beyond the deck overhang at the fascias to provide proper protection.
3. Shielding shall have all spaces along the perimeter and at the seams sealed to prevent dust and debris from escaping and falling below the bridge into the waterway.
4. Shielding shall be designated to safely withstand all loads that it will be subjected to during construction. The allowable design stresses shall be in accordance with the AASHTO Standard Specifications for Highway Bridges. The design shall also include a complete description of the equipment and construction methods proposed for the superstructure removal and also the maximum size of superstructure area being demolished. The shielding shall also be designed to withstand the maximum size of decking and other construction materials, should they fall during the demolition or removal processes. Shielding design, calculations and sketches shall be stamped by a Professional Engineer registered in Massachusetts.
5. Protective shielding shall not be installed until the Engineer’s review has been completed. No work shall be performed until the protective shielding is in place and complete.
6. The shielding shall be maintained and remain in place until the repair work is completed. Shielding shall be removed only upon approval of the Engineer. After completion, the shielding shall be removed and disposed of to the satisfaction of the Engineer.

All materials used in the shielding system shall become the property of the Contractor and shall be removed from the site at the completion of the project.

ITEM 994.01 (Continued)

SUBMITTALS

The Contractor shall submit shop drawings, working drawings, and associated design calculations, stamped by a Professional Engineer registered in Massachusetts, of all proposed shielding to the Engineer for approval prior to installation. The drawings shall include all details of all connections, brackets, and fasteners. The protective shielding shall be designed to support all construction and dead loads safely; and to be sealed tightly at all joints.

BASIS OF PAYMENT

Item 994.01 will be paid for at the contract Lump Sum bid price, which price shall include all labor materials, equipment, tools, engineering services, submittals, and incidental costs required to complete the work.

The first payment of 70 percent of the lump sum bid price of this Item will be made upon completion of the installation of the shielding system to the satisfaction and approval of the Engineer.

The second payment of 30 percent of the lump sum bid prices of this Item will be made upon the complete construction of the proposed bridge and proper disposal of the shielding from the project site.

ITEM 995.01 BRIDGE STRUCTURE, BRIDGE NO. D-08-002 LUMP SUM

The work under this Item shall conform to the applicable provisions of Subsection 995 of the Standard Specifications and the specific requirements stipulated below for the component parts of this Item. For those component parts where no specific requirement is stipulated, the Standard Specifications shall apply except for payment.

The work under this item includes all material, equipment, and labor needed to construct the following: cast-in-place concrete pile caps, abutments, wingwalls, deck, and approach slabs; steel reinforcement for structures; the prestressed precast concrete NEXT F Beam superstructure; elastomeric bearings; S3-MTL4 bridge rail; precast and cast-in-place highway guardrail transitions; controlled low-strength material around the precast highway guardrail transitions; structural steel for utility supports; membrane waterproofing; damp-proofing; sawing and sealing joints in asphalt pavement at bridges; and all other items not specifically provided for in the contract.

The work does not include any items listed separately in the proposal. Payment for materials shown on the Plans as being part of this bridge structure, or which may be incidental to its construction and are not specifically included for payment under another item, shall be considered incidental to the work performed under this Item and shall be included in the unit price of the component of which they are a part.

CONTROLLED LOW-STRENGTH MATERIAL – NON-EXCAVATABLE

The work under this heading shall conform to the relevant provisions of Subsection 160 of the Standard Specifications and the following:

Non-Excavatable Material to be used on this project shall be Controlled Low-Strength Material (>300 PSI), M4.08.0.

SAWING & SEALING JOINTS IN ASPHALT PAVEMENT AT BRIDGES

The work to be done under this heading consists of making a sealed kerf across the full width of the finished asphalt pavement at bridge abutments where called for on the Plans. The shape, width, and depth of the kerf shall be as shown on the Plans.

Prior to the start of the asphalt pavement operation, the Contractor shall place a mark on each curb or barrier on either side of the paved roadway. These marks shall be aligned with the actual end of the bridge deck and shall be placed so that they will not be covered or otherwise obscured by the asphalt pavement.

After the completion of the paving operation, the Contractor shall snap a straight chalk line on the pavement between these two marks. The Contractor shall then saw cut the pavement along this line to the depth, width and shape as shown on the Plans. The equipment shall be approved by the Engineer prior to commencing work.

ITEM 995.01 (Continued)

After completing the saw cutting, the Contractor shall clean the saw groove of any dust and debris with an oil free air blast. If the groove was wet sawn, the groove shall be cleaned with a water blast to remove any remaining slurry and debris, vacuumed with a Wet-or-Dry vacuum to remove any standing water, and then dried with an air blast from a Hot-Air-Lance.

Once the groove is clean and dry, the Contractor shall fill it completely with a hot-applied bituminous crack sealer meeting the requirements of M3.05.4 in accordance with the manufacturer's application instructions and restrictions regarding ambient and material temperatures. The crack sealer shall be thoroughly cured prior to opening the road to traffic. To reduce tackiness, only boiler slag aggregate (black beauty) shall be scattered over the sealer when required by the Engineer. Conventional sand shall not be used for this purpose.

5000 PSI, 3/4 INCH, 685 HP CEMENT CONCRETE

The work under this heading shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following:

Cement concrete to be used on this project shall conform to the requirements of M4.00.00, M4.01, and M4.02.

STEEL REINFORCEMENT FOR STRUCTURES
STEEL REINFORCEMENT FOR STRUCTURES – EPOXY COATED

The work under this heading shall conform to the relevant provisions of Subsection 901 of the Standard Specifications and the following:

Steel reinforcement to be used on this project shall conform to the requirements of M8.01.00 and M8.01.7.

LAMINATED ELASTOMERIC BEARING PAD WITHOUT ANCHOR BOLTS

The work under this heading shall conform to the relevant provisions of Subsection 922 of the Standard Specifications and the following:

Laminated Elastomeric Bearing Pads to be used on this project shall conform to the requirements of M9.14.5.

ITEM 995.01 (Continued)

NEXT F CONCRETE BEAMS

A. General.

The work under this Heading consists of fabricating, transporting and installing Prestressed NEXT F concrete beams, and includes all necessary labor, materials, and equipment to complete the work as shown on the Plans. The Precast, Prestressed, and Prefabricated Concrete Elements shall meet the requirements of Section M4: Cement Concrete and Related Materials.

MATERIALS

A. Materials.

Materials shall conform to M4.09.1 and the following:

Non-Shrink Grout Products	M4.04.5
Prestressing Strands	AASHTO M 203
Welded Steel Wire Fabric	M8.01.2
Mechanical Reinforcing Bar Splicer	M8.01.9
Strand Chuck	M8.15.0
Lifting Devices	PCI MNL-116

1. Reinforcement and Prestressing Strands.

The size and grade of steel reinforcement and prestressing strands shall be as indicated on the plans. All reinforcing steel shall be epoxy coated, Grade 60. All prestressing strands shall be uncoated.

2. Threaded Inserts.

Threaded inserts are permissible in Prestressed Concrete Beams for installing formwork, utility supports, or deck drains. Threaded inserts shall be hot dip galvanized or made of stainless steel and shall not come in contact with the reinforcing steel. The number of threaded inserts installed for the Contractor's convenience shall be kept to a minimum.

CONSTRUCTION METHODS – PLANT FABRICATION

A. Pre-Production Meeting.

The Contractor shall notify the MassDOT Research and Materials Section to determine if a pre-production meeting will be required to review the specification, shop drawings, curing plan, schedule, and discuss any specific requirements. The meeting shall be held prior to scheduling a MassDOT Inspector (refer to M4.09.4 *Department Acceptance*), and at least seven (7) days prior to the scheduled casting of any Prestressed Concrete Beam or control section. The Contractor shall schedule the meeting, which shall include representatives of the Fabricator and MassDOT.

ITEM 995.01 (Continued)

B. Reinforcement.

The reinforcing bars shall be installed in accordance with Subsection 901.35 of the Standard Specifications, including tolerances for cover and horizontal spacing of bars. Components of mechanical reinforcing bar splicers shall be set with the tolerances shown on the plans. The reinforcing bars and mechanical reinforcing bar splicers shall be assembled into a rigid cage that will maintain its shape in the form and which will not allow individual reinforcing bars to move during the placement of concrete. This cage shall be secured in the form so that the clearances to all faces of the concrete, as shown on the plans, shall be maintained.

C. Placing and Tensioning Strands.

Placing and tensioning strands shall be in accordance with PCI MNL-116. The location of all prestressing strands shall be as indicated on the plans.

D. Tolerances.

Fabrication shall comply with tolerances specified on the plans. Tolerances for steel reinforcement placement shall be in accordance with Subsection 901.35. In the absence of specifications on the plans, tolerances shall comply with the latest version of the PCI MNL 135, Precast Tolerance Manual.

E. Forms.

Concrete shall be cast in rigidly constructed forms, which will maintain the Prestressed Concrete Beams within specified tolerances to the shapes, lines and dimensions shown on the approved fabrication drawings. Forms shall be constructed from flat, smooth, non-absorbent material and shall be sufficiently tight to prevent the leakage of the plastic concrete. When wood forms are used, all faces in contact with the concrete shall be laminated or coated with a non-absorbent material. All worn or damaged forms, which cause irregularities on the concrete surface or damage to the concrete during form removal, shall be repaired or replaced before being reused. If threaded inserts are cast into the elements for support of formwork, the inserts shall be recessed a minimum of 1 inch and shall be plugged after use with a grout of the same color as that of the precast cement concrete.

CONSTRUCTION METHODS – FIELD CONSTRUCTION

A. General.

All of the Contractor's field personnel involved in the erection and assembly of the Prestressed Concrete Beams shall have knowledge of and follow the approved Erection Procedure and Quality Control Plan for Prestressed Concrete Beam Assembly.

Prior to installation, the following documentation shall be reviewed and confirmed by the MassDOT Resident Engineer or designee:

a) QC Compressive Strength Test Report Forms attaining Design Strength, f'c for the Prestressed Concrete Beam's representative sublot.
b) Certificate of Compliance generated by the Fabricator as described under the Fabricator Quality Control section.
c) QC Inspection Reports signed by the Quality Control Manager.

Field construction staff shall verify that the Resident Engineer has accepted all Prestressed Concrete Beams prior to installation.

ITEM 995.01 (Continued)

B. Erection Procedure and Quality Control Plan for Prestressed Concrete Beam Assembly.

Prior to the erection, the Contractor shall submit an Erection Procedure and a Quality Control Plan for Prestressed Concrete Beam Assembly for approval by the Engineer. This submittal shall include computations and drawings for the transport, hoisting, erection and handling of the Prestressed Concrete Beams. The Erection Procedure and Quality Control Plan for Prestressed Concrete Beam Assembly shall be prepared and stamped by a Professional Engineer registered in the Commonwealth of Massachusetts with working knowledge of the Contractor's equipment, approved shop drawings, and materials to build the bridge. The Erection Procedure and Quality Control Plan for Prestressed Concrete Beam Assembly shall, at a minimum, include the following:

1. Erection Procedure.

The Erection Procedure shall be prepared to conform to the requirements of 960.61, Design, Fabrication and Erection and the applicable sections in Chapter 8 of the PCI Design Handbook (eighth edition) for handling, erection, and bracing requirements. At a minimum, the Erection Procedure shall provide:

a) Steel reinforcing details, and location and details of lifting devices
b) Minimum concrete compressive strength for handling the Prestressed Concrete Beams.
c) Concrete stresses during handling, transport, and erection.
d) Crane capacities, pick radii, sling geometry, and lifting hardware.
e) Verification that the equipment can handle all pick loads and weights with the required factor of safety.
f) Evaluation of construction sequence and evaluation of any geometric conflicts in the lifting of the Prestressed Concrete Beams and setting them on the abutments and piers.
g) Design of crane supports including verification of subgrade for support.
h) Location and design of all temporary bracing that will be required during erection.

2. Quality Control Plan for Prestressed Concrete Beam Assembly.

The Quality Control Plan for Prestressed Concrete Beam Assembly is a document prepared and submitted by the Contractor prior to the start of work which requires the Contractor to identify and detail the sequence of construction in accordance with the project schedule and which clearly identifies all stages of field construction. The assembly procedures for the Prestressed Concrete Beams shall be submitted in PDF format on 24"x36" sheets. This document will be treated as a Construction Procedure and will be reviewed by both the Designer and the District Construction Office.

At a minimum, the Quality Control Plan for Prestressed Concrete Beam Assembly shall include the following:

a) Listing of the equipment, materials, and personnel including their assigned responsibilities that will be used to erect and assemble the Prestressed Concrete Beams on site.
b) Documentation of all preparatory work necessary for moving personnel, equipment, supplies, and incidentals to the project site before beginning work.
c) Detailed schedule showing the sequence of operations that the Contractor will follow to complete the field construction from setting working points and working lines to the casting of closure pours and the curing of the closure pour concrete, as described below and as called for on the plans.
d) Contractor's means for ensuring that the Prestressed Concrete Beam shall align to the roadway profile and cross slope and means for adjusting the final deck slab elevation.
e) Timeline and descriptions of Quality Control activities to be followed throughout the field construction operations including methods and procedures for controlling tolerance limits both horizontally and vertically.

ITEM 995.01 (Continued)

C. Survey and Layout.

Working points, working lines, and benchmark elevations shall be established prior to placement of all elements. The Contractor is responsible for field survey as necessary to complete the work. MassDOT reserves the right to perform additional independent survey. If discrepancies are found, the Contractor may be required to verify previous survey data.

D. Prestressed NEXT F Concrete Beams

1. Beam Layout and Erection.

Prestressed concrete beams shall be installed to the line and grade shown on the plans in accordance with the Contractor's approved Erection Procedure and Assembly Plan.

As the beams are being erected, the Contractor shall monitor the width of the closure pours and the out-to-out width of the beams top flanges so that, after all beams are erected, the actual overall width of the bridge deck shall not deviate from the dimension shown on the plans beyond a tolerance of +0 inches and -1 inches. In order to achieve this, the Contractor may vary the width of the closure pours within the tolerances specified on the plans.

2. Concrete Deck Slab Placement.

Prior to casting the deck, the abutments and piers shall be prepared for the placement of the deck concrete as called for on the plans and the Contractor shall cut the lifting devices off below the top of the beam.

The top of the beam shall be clean and free of all laitance. Deck concrete shall be placed against the beam concrete without the use of any bonding agents.

After the formwork has been removed, all threaded inserts that have been cast into the beams for support of the formwork shall be plugged with a grout of the same color as that of the precast concrete

PRECAST CONCRETE HIGHWAY GUARDRAIL TRANSITIONS

A. General.

The work under this Heading consists of fabricating, transporting and installing Precast Concrete Highway Guardrail Transitions and includes all necessary labor, materials, and equipment to complete the work as shown on the Plans. The Precast Concrete Bridge Elements shall meet the requirements of Section M4: Cement Concrete and Related Materials.

MATERIALS

A. Materials.

Materials shall conform to M4.09.1 and the following:

Non-Shrink Grout Products	M4.04.5
Controlled Low-Strength Material – Structural Non-Excavatable	M4.08.0
Welded Steel Wire Fabric	M8.01.2
Mechanical Reinforcing Bar Splicer	M8.01.9
Lifting Devices	PCI MNL-116
Corrugated Metal Pipe	AASHTO M 36

ITEM 995.01 (Continued)

1. Vertical Adjustment Assembly.

Vertical Adjustment Assembly details and material requirements shall be as shown on the plans. Alternate devices may be used provided that they are adjustable and can support the anticipated loads. The design of the leveling devices, with necessary calculations, shall be submitted to the Engineer of Record for approval.

2. Threaded Inserts.

Threaded inserts are permissible to facilitate forming the keyway pours. Threaded inserts shall be hot dip galvanized or made of stainless steel. The number of threaded inserts shall be minimized, and the inserts shall not come in contact with the reinforcing steel.

3. Corrugated Metal Pipe.

Corrugated Metal Pipe to be used for forming voids as specified on the plans shall be fabricated from steel and shall have a protective metallic coating of zinc (galvanizing).

CONSTRUCTION METHODS – PLANT FABRICATION

A. Pre-Production Meeting.

The Contractor shall notify the MassDOT Research and Materials Section to determine if a pre-production meeting will be required to review the specification, shop drawings, curing plan, schedule, and discuss any specific requirements. The meeting shall be held prior to scheduling a MassDOT Inspector (refer to M4.09.4 Department Acceptance), and at least seven (7) days prior to the scheduled casting of any Precast Concrete Bridge Element or control section. The Contractor shall schedule the meeting, which shall include representatives of the Fabricator and MassDOT.

B. Reinforcement.

The reinforcing bars shall be installed in accordance with Subsection 901.35, including tolerances for cover and horizontal spacing of bars. Components of mechanical reinforcing bar splicers shall be set with the tolerances shown on the plans. The reinforcing bars and mechanical reinforcing bar splicers shall be assembled into a rigid cage that will maintain its shape in the form and which will not allow individual reinforcing bars to move during the placement of concrete. This cage shall be secured in the form so that the clearances to all faces of the concrete, as shown on the plans, shall be maintained.

Where reinforcing bars are to protrude from one Precast Concrete Bridge Element in order to mate with reinforcing bar splicers in a second precast concrete element, the fabricator shall set the reinforcing bars and the reinforcing bar splicers with a template in order to ensure proper fit up within the tolerances specified on the plans.

C. Tolerances.

Fabrication shall comply with tolerances specified on the plans. Tolerances for steel reinforcement placement shall be in accordance with Subsection 901.35. In the absence of specifications on the plans, tolerances shall comply with the latest version of the PCI MNL 135, Precast Tolerance Manual.

ITEM 995.01 (Continued)

D. Forms.

Concrete shall be cast in rigidly constructed forms, which will maintain the Precast Concrete Bridge Elements within specified tolerances to the shapes, lines and dimensions shown on the approved fabrication drawings. Forms shall be constructed from flat, smooth, non-absorbent material and shall be sufficiently tight to prevent the leakage of the plastic concrete. When wood forms are used, all faces in contact with the concrete shall be laminated or coated with a non-absorbent material. All worn or damaged forms, which cause irregularities on the concrete surface or damage to the concrete during form removal, shall be repaired or replaced before being reused. If threaded inserts are cast into the elements for support of formwork, the inserts shall be recessed a minimum of 1 inch and shall be plugged after use with a grout of the same color as that of the precast cement concrete.

CONSTRUCTION METHODS – FIELD CONSTRUCTION

A. General.

All of the Contractor's field personnel involved in the erection and assembly of the Precast Concrete Bridge Elements shall have knowledge of and follow the approved Erection Procedure.

Prior to installation, the following documentation shall be reviewed and confirmed by the MassDOT Resident Engineer or designee:

a) QC Compressive Strength Test Report Forms attaining Design Strength, f'c for the Precast Concrete Bridge Element's representative sublot.
b) Certificate of Compliance generated by the Fabricator as described under the Fabricator Quality Control section.
c) QC Inspection Reports signed by the Quality Control Manager.

Field construction staff shall verify that the Resident Engineer has accepted all Precast Concrete Bridge Elements prior to installation.

B. Erection Procedure.

Prior to the erection, the Contractor shall submit an Erection Procedure for approval by the Engineer. This submittal shall include computations and drawings for the transport, hoisting, erection and handling of the Precast Concrete Bridge Elements. The Erection Procedure shall be prepared and stamped by a Professional Engineer registered in the Commonwealth of Massachusetts with working knowledge of the Contractor's equipment, approved shop drawings, and materials to build the bridge. The Erection Procedure shall, at a minimum, include the following:

1. Erection Procedure

The Erection Procedure shall be prepared to conform to the requirements of 960.61, Design, Fabrication and Erection and the applicable sections in Chapter 8 of the PCI Design Handbook (eighth edition) for handling, erection, and bracing requirements. At a minimum, the Erection Procedure shall provide:

a) Minimum concrete compressive strength for handling the Precast Concrete Bridge Elements.
b) Concrete stresses during handling, transport, and erection.
c) Crane capacities, pick radii, sling geometry, and lifting hardware.

ITEM 995.01 (Continued)

d) Verification that the equipment can handle all pick loads and weights with the required factor of safety.
e) Evaluation of construction sequence and evaluation of any geometric conflicts in the lifting of the Precast Concrete Bridge Elements and setting them as shown on the plans.
f) Design of crane supports including verification of subgrade for support.
g) Location and design of all temporary bracing that will be required during erection.

Non-shrink grout and concrete materials, approved by the Engineer, shall be placed as shown on the plans. Fill joints, keyways, and voids, in strict accordance with the specifications and manufacturer's recommendations and instructions.

For footings, approach slabs and highway guardrail transitions, once these Precast Concrete Bridge Elements have been set to the correct horizontal and vertical alignment, the void between them and the supporting soil shall be filled with Controlled Low-Strength Material – Structural Non-Excavatable to the limits as shown on the plans. Add additional grout ports in the footings to facilitate the bedding process if required.

Except in approach slabs, joints shall be filled flush to the top with non-shrink grout, and any vertical misalignment between adjacent elements shall be feathered out on a slope of 1 to 12.
Curing of grout or concrete shall be performed in strict accordance with the specifications and manufacturer's recommendations. Filling shall not be completed in cold weather when either the ambient temperature or the precast member's temperature is below the manufacturer's recommendation. No localized heating of either the precast members or of the air surrounding the element will be permitted in an attempt to reach application temperatures.

If the joints or voids are not filled within five days after the Precast Bridge Elements are erected, the Contractor shall cover and protect the openings from weather and debris until they are filled.

C. Survey and Layout.

Working points, working lines, and benchmark elevations shall be established prior to placement of all elements. The Contractor is responsible for field survey as necessary to complete the work. MassDOT reserves the right to perform additional independent survey. If discrepancies are found, the Contractor may be required to verify previous survey data.

D. Preparation of Closure Pours and Grouted Keyways.

Immediately prior to erecting the Precast Concrete Bridge Elements, the closure pours and grouted keyways shall be cleaned at the job site of all dust, dirt, carbonation, laitance, and other potentially detrimental materials which may interfere with the bonding of the closure pour concrete or grout and precast concrete using a high-pressure water blast. Any exposed reinforcing steel in the precast concrete shall be protected from damage during the cleaning of the keyways. Damaged epoxy coating of steel reinforcement shall be repaired, and the reinforcing steel shall be cleaned as directed by the Engineer. The surfaces of the closure pours and grouted keyways shall be wetted so that the surfaces shall have a Saturated Surface Dry (SSD) condition for at least 24 hours prior to the placement of the closure pour concrete.

ITEM 995.01 (Continued)

E. Erection.

The elements shall be placed in the sequence and according to the methods outlined in the Erection Procedure. As the erection proceeds, the Contractor shall constantly monitor the assembly to ensure that the precast concrete bridge element is within proper horizontal and vertical location and tolerances prior to releasing it from the crane and setting the next unit. The Contractor may use shims to maintain proper setting tolerances.

The concrete elements shall be lifted only by the lifting devices, and the utmost care shall be taken to prevent distortion of the elements during handling, transportation or storage.

This approval will be contingent on the Contractor demonstrating by calculations, prepared by a Professional Engineer registered in Massachusetts, that the elements will not be damaged by the non-vertical lifting force and by documentation that the capacity of the lifting devices is adequate for the non-vertical lifting force.

After all Precast Concrete Bridge Elements have been placed, the actual overall dimensions of the structure both horizontal and vertical, as laid out shall not deviate from the nominal dimensions shown on the plans beyond a tolerance of +0 inches and -1 inches. Once the layout of Precast Concrete Bridge Elements has been accepted by the Engineer, the Contractor shall cut all lifting devices off below the surfaces of the elements.

F. Filling of Blockouts for Lifting Devices and Threaded Inserts.

If the blockouts in the Precast Concrete Bridge Elements where the lifting devices were located will be exposed and visible after assembly is complete, the Contractor shall fill these blockouts with Mortar (M4.04.5).

After the formwork has been removed, all threaded inserts that have been cast into the precast concrete bridge deck for support of the formwork shall be filled with a grout of the same color as that of the precast concrete.

HOT DIP GALVANIZED COATING FOR NEW STRUCTURAL STEEL

A. GENERAL

Fabricated steel shall be galvanized as indicated on the plans. All fabrication shall be completed prior to surface preparation and the application of any coating.

The faying surfaces of all field bolted connections shall be coated based on the design of the connection. Class B connections shall be masked prior to galvanizing to allow for application of an approved class B slip coefficient primer. After galvanizing the masked surface will be cleaned in accordance with SSPC-SP11 and coated with the approved zinc rich primer. A galvanized connection will result in a faying surface meeting a class C slip coefficient.

When grinding, drilling or any other operation produces steel turnings, filings, shavings, etc. the contractor shall completely clean all areas of all accumulation prior to the end of the work shift.

Locations of field applied studs shall require masking or removal of galvanizing and paint prior to welding.

ITEM 995.01 (Continued)

The Engineer shall provisionally accept the shop coated items before shipment to the jobsite but final acceptance of the coating system will occur after erection of the coated items, and after all required repairs and coating application has been completed.

The Contractor shall be responsible for failure and damage of all applied coating. Failures include but are not limited to, visible corrosion, blistering, checking, cracking, or delamination (peeling) and loss of gloss and color of the coating system. Damage includes but is not limited to damage from installation or from external agents, such as scraping, vandalism, debris impacts, and collisions. The extent and method of repair must be approved by the Engineer.

B. GALVANIZING

The following shall be hot dipped galvanized in accordance with Section M7 of these Specifications:

a) Utility supports and hardware

Galvanized members requiring shop fabrication and assembly shall be cut, welded, and/or drilled prior to galvanizing. Bearing members to be milled shall be galvanized prior to milling. A thin layer of a rust inhibitor shall be applied to the milled surface. Material to be painted shall not be quenched after galvanizing.

Damaged galvanized surfaces shall be repaired in accordance with ASTM A780 "Repair of Hot Dip Galvanizing" section 4.2.2 Paints Containing Zinc Dust "High Zinc Dust Content". The paint shall be applied to achieve a minimum dry film thickness of 3 mils and not more than 5 mils. Repair paint shall meet M7.04.11 and application shall be in accordance with the manufacturer's recommendations.

The Contractor shall provide protection of the adjacent coating in areas that will be field welded. After welding, the weld areas shall be prepared in accordance with SSPC-SP-11.

MEMBRANE WATERPROOFING FOR BRIDGE DECKS

The work under this heading shall conform to the relevant provisions of Subsection 965 of the Standard Specifications and the following:

Membrane Waterproofing used on this project shall conform to the requirements of M9.08.1.

DAMP-PROOFING

The work under this heading shall conform to the relevant provisions of Subsection 970 of the Standard Specifications and the following:

Damp-proofing used on this project shall conform to the requirements of M9.09.2.

ITEM 995.01 (Continued)

METAL BRIDGE RAILING (3 RAIL), STEEL (TYPE S3-MTL4)

The work under this heading shall conform to the relevant provisions of Subsection 975 of the Standard Specifications and the following:

S3-MTL4 bridge railing to be used on this project shall conform to the requirements of M8.13.1.

BASIS OF PAYMENT

Bridge Structure shall be paid at the Contract Lump Sum bid, which said sum shall be full compensation for furnishing all equipment, transportation, materials, and labor necessary to furnish and install the cast-in-place reinforced concrete pile cap, abutments, wingwalls, deck and approach slabs; elastomeric bearing pads; prestressed precast NEXT F beams, including all shipping, handling, joining; S3-MTL4 bridge rail; precast and cast-in-place highway guardrail transitions; controlled low-strength material around the precast highway guardrail transitions; structural steel for utility supports; damp-proofing; membrane waterproofing for bridge decks; utility supports; pavement sawcut joint; and appurtenances required to complete the system as specified herein and indicated on the Plans.

SCHEDULE OF BASIS FOR PARTIAL PAYMENT

Within ten (10) days after the Notice to Proceed, the Contractor shall submit, in duplicate, for the approval of the Engineer, a schedule of unit prices for the major components of each bridge superstructure as listed below. The bridge superstructure Lump Sum breakdown quantities provided below are estimated and not guaranteed. The total of all partial payments to the Contractor shall equal the Lump Sum contract price regardless of the accuracy of the quantities furnished by the Engineer for the individual bridge components. The cost of labor and materials for any Item not listed but required to complete the work shall be considered incidental to Item 995.01 and no further compensation will be allowed.

ITEM 995.01 (Continued)

Sub Item	Description	Quantity	Unit	Unit Price	Total
160.3	Controlled Low-Strength Material (>300 PSI)	3	CY		
482.31	Sawing and Sealing Joints in Asphalt Pavement at Bridges	62	FT		
904.3	5000 PSI, 3/4 Inch, 685 HP Cement Concrete	595	CY		
910.	Steel Reinforcement for Structures	8,870	LB		
910.1	Steel Reinforcement for Structures - Epoxy Coated	63,405	LB		
922.	Laminated Elastomeric Bearing Pad Without Anchor Bolts	16	EA		
931.22	120-Inch Wide Precast Concrete NEXT F Beam	125	LF		
936.	Precast Concrete Highway Guardrail Transition	3	EA		
960.1	Structural Steel – Coated Steel	409	LB		
965.	Membrane Waterproofing for Bridge Decks	1,080	SF		
970.	Damp-Proofing	3,630	SY		
975.10	Metal Bridge Railing (3 Rail), Steel (Type S3-MTL4)	147	FT		

Total Lump Sum Price for Item 995.01 =

The above schedule applies only to Bridge No. D-08-002 (CV1). Payment for similar materials and construction at locations other than at this bridge structure shall not be included under this Item.

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DETAIL SHEETS

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ORDER NO. _____

THE COMMONWEALTH OF MASSACHUSETTS
MASSDOT HIGHWAY DIVISION
TEN PARK PLAZA - BOSTON, MA

- PRELIMINARY ESTIMATE OF QUANTITIES - DETAIL SHEET -

CITY/TOWN Dighton YEAR 2026
STA 9+90 TO 13+41 ROAD PLEASANT STREET OVER MUDDY COVE (20+00 TO 21+31)
TYPE OF PROJECT Bridge Replacement DATE 4/16/2026

Unclassified Excavation	550	CY	Gravel Borrow	250	CY
Bridge Excavation	860	CY	Crushed Stone	110	TON
Bridge Excavation Within Cofferdam	500	CY	Gravel Borrow for Backfilling Structures and Pipes	615	CY
Crushed Stone for Bridge Foundations	130	TON			

Proposed Pavement Fine Milling and Overlay **Area = 227 SY**

Pavement Milling: 1.75" ±0.75" MINIMUM PAVEMENT FINE MILLING

Surface Course: 1.75 " SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC-12.5-P) OVER

Intermediate Course: 1.75" – 2.5" MAX LIFTS OF SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) AS REQUIRED

Proposed Full Depth Pavement **Area = 782 SY**

Surface Course: 1.5" SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC-12.5-P) OVER

Intermediate Course: 1.75" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER

Base Course: 3.25" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER

Sub-base: 4" DENSE GRADED CRUSHED STONE FOR SUBBASE OVER 8" GRAVEL BORROW TYPE b

Proposed Cement Concrete Sidewalk and Pedestrian Curb Ramps **Area = 92 SY**

Surface Course: 4" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, ¾", 610)

Base Course: 8" GRAVEL BORROW, TYPE B

Proposed Cement Concrete Sidewalk at Driveways **Area = 11 SY**

Surface Course: 6" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, ¾", 610)

Base Course: 8" GRAVEL BORROW, TYPE B

Proposed Hot Mix Asphalt Sidewalk and Walk **Area = 4 SY**

Surface Course: 1.25" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER
1.75" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER

Base Course: 8" GRAVEL BORROW TYPE B

Proposed Hot Mix Asphalt Driveways and Sidewalk at Driveways **Area = 9 SY**

Surface Course: 1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER
2.5" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER

Base Course: 8" GRAVEL BORROW TYPE B

Proposed Bridge Pavement **Area = 142 SY**

Surface Course: 1.5" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC- B-9.5-P) OVER
1.5" SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 POLYMER (SPC-B-9.5-P)

ITEM 102.511 TREE PROTECTION – ARMORING AND PRUNING

LOCATION	STA.	LT/RT
Pleasant Street	12+26	R

ITEM 102.513 AIR EXCAVATION AND ROOT PRUNING

LOCATION	STA.	LT/RT
Muddy Cove Lane	20+92	LT
Pleasant Street	13+05	RT

ITEM 102.521 TREE AND PLANT PROTECTION FENCE

LOCATION	STA.	LT/RT
Muddy Cove Lane	20+92	LT
Pleasant Street	13+05	RT

ITEM 220.7 SANITARY STRUCTURE ADJUSTED

As required to adjust line or grade of existing sanitary structures by 6 inches or less

LOCATION	STA.
MUDDY COVE LANE	20+34

ITEM 349.08 8 INCH GATE VALVE

For water relocation

LOCATION	STA	RT
PLEASANT ST	11+34	RT
PLEASANT ST	11+35	RT
PLEASANT ST	11+38	RT

ITEM 357.06 6 INCH GATE BOX

To replace existing broken 6 Inch Gate boxes and as required by the Engineer.

LOCATION	STA
PLEASANT ST	11+34

ITEM 358. GATE BOX ADJUSTED

LOCATION	STA.
PLEASANT ST	11+32
PLEASANT ST	11+62

And as required to adjust line or grade of existing gate boxes.

ITEM 470.99 HOT MIX ASPHALT BERM – MODIFIED

	STA.			STA.	
PLEASANT ST	9+90	LT	PLEASANT ST	10+08	LT
PLEASANT ST	10+16	LT	PLEASANT ST	10+23	LT
PLEASANT ST	10+41	LT	PLEASANT ST	11+30	LT

ITEM 472. TEMPORARY ASPHALT PATCHING

For water work in Full Depth Area and Driveways.

ITEM 657. TEMPORARY FENCE

LOCATION	STA.	LT/RT		STA.	LT/RT
PLEASANT ST	10+27	RT	to	11+44	RT
PLEASANT ST	12+48	LT		13+41	LT
MUDDY COVE LANE	20+46	RT		21+05	RT

And as required by the Engineer.

ITEM 693. BOULDER REMOVED AND STACKED

For all boulders within the project limits that is impacted by the proposed work, to be stacked on the owner's property.

LOCATION	STA.	LT/RT
PLEASANT ST	12+50	RT
	12+82	RT
	12+92	RT
	12+98	RT

ITEM 698.3 GEOTEXTILE FABRIC FOR SEPARATION

For use at all proposed modified rockfill and stone for pipe ends locations.

LOCATION	STA.	to	STA.	LT/RT
PLEASANT ST	11+43.73		11+76.14	RT
PLEASANT ST	11+93.85		12+10.82	RT
PLEASANT ST	11+85.11		11+98.43	LT
PLEASANT ST	12+13.56		12+48.91	LT

ITEM 751. LOAM FOR ROADSIDES
ITEM 765. SEEDING

LOCATION	STA.	to	STA.	LT/RT
PLEASANT ST	10+00.00		11+56.04	RT
PLEASANT ST	12+41.3		13+41.07	LT
MUDDY COVE	20+21.29		21+00.00	RT

ITEM 767.121 SEDIMENT CONTROL BARRIER

LOCATION	STA.	LT/RT	TO	STA.	LT/RT
PLEASANT ST	12+03	RT		13+00	RT

ITEM 767.122 SEDIMENT BARRIER – COIR LOG

LOCATION	STA.	LT/RT	TO	STA.	LT/RT
PLEASANT ST	10+00	RT		11+76	RT
	11+93	RT		12+15	RT
	12+13	LT		13+37	LT
MUDDY COVE LANE	20+21	RT		21+01	RT

ITEM 854.016 TEMPORARY PAVING MARKINGS – 6 INCH (PAINTED)

For length of project with two applications.

ITEM 854.036 TEMPORARY PAVING MARKINGS – 6 INCH (TAPE)

Assume 10% of project length for short term use.

ITEM 986. MODIFIED ROCKFILL

LOCATION	STA.	to	STA.	LT/RT
PLEASANT ST	11+43.73		11+76.14	RT
PLEASANT ST	11+93.85		12+10.82	RT
PLEASANT ST	11+85.11		11+98.43	LT
PLEASANT ST	12+13.56		12+48.91	LT

DOCUMENT A00807

DIGHTON WATER DISTRICT
RULES AND REGULATIONS

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RULES AND REGULATIONS

Dighton Water District
192 Williams St.
No. Dighton, MA 02764

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DIGHTON WATER DISTRICT
Established under Chapter 359
Acts of 1950 of the
General Court of Massachusetts

FOREWORD

This information has been prepared to establish a better understanding between the Water District and the citizens in the Town of Dighton.

The rules and regulations embody a uniform practice governing the District for the installation of services, meters, water mains and miscellaneous services rendered. They are intended to define the obligations of the District to the consumer and of the consumer to the District.

Like any other raw product, water must be processed before it reaches its finished state. After this is accomplished, it must be distributed through miles of water mains in order to reach all consumers served by our system.

People, as never before, are beginning to realize how essential their water supply is to life and health and the protection of property against fire. In addition to its value to our civilian economy, it is recognized by manufacturers as a basic material for which there is no substitute.

BOARD OF WATER COMMISSIONERS

EFFECTIVE AS OF DECEMBER 12, 1995

AMENDED-JANUARY 15, 2003

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GENERAL INFORMATION

MAIN OFFICE:
The main office of the District is located at 192 Williams St., Avenue, No. Dighton, Massachusetts.

OFFICE HOURS:
Office hours Monday-Thursday 8:00 A.M. to 3:30 P.M., Friday 8:00 A.M.-12:00 P.M., CLOSED SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS;

INFORMATION AND COMPLAINTS:
Any information about water services, rates, rules, etc. may be obtained by calling 508-824-9390 and you will be connected with the proper party. Complaints of a minor nature may be made by phone. Major complaints should be made in writing and addressed to the Superintendent of the Water District, 192 Williams St., No. Dighton, Massachusetts 02764.

EMERGENCY CALLS:
The District maintains emergency crews who are on duty the entire 24 hours, including Saturdays, Sundays, and holidays. Any emergency may be reported during office hours by calling 508-824-9390 or outside of office hours by calling 508-669-6711.

STREET SERVICES:
Services between the street main and the property line are maintained by the District. Any and all work inside the property line and in the building must be performed by a licensed plumber at the owner's expense.

INSPECTORS AND METER READERS:
Do not allow any person claiming to be an employee of the District to enter your premises unless he can show proper identification. Authorized employees will be in a Water District vehicle.

RATES FOR WATER:
The entire supply of the Dighton Water District system to any and all premises shall be furnished by meter ONLY, and at the following prescribed rates, which are adopted and approved by the Commissioners of the Dighton Water District.

BILLS:
Charges for water will be made twice a year or oftener, as

determined by the Board of Water Commissioners.

METERED SERVICE RATES:

Meters for residential users are read annually by Water District personnel. The minimum charge of $140.00 per year for in district users and $340.00 for out of district users will entitle each owner to 40,000 gallons per fiscal year. The owner will be charged for water used in any one fiscal year in excess of 40,000 gallons at the rate shown on the District's rate sheet. Customers are advised to read the sheet. (RATES ARE SUBJECT TO CHANGE, PLEASE CALL FOR THE MOST CURRENT RATES)

Meters for commercial/industrial and semi users are read monthly by Water District personnel. Bills are sent out monthly, rates are shown on the District's rate sheet. (RATES ARE SUBJECT TO CHANGE, PLEASE CALL FOR THE MOST CURRENT RATES)

* Meters for seasonal users are read when the meter is removed by Water District personnel. Rates are shown on the District's rate sheet. (RATES ARE SUBJECT TO CHANGE, PLEASE CALL FOR THE MOST CURRENT RATES)

RULES AND REGULATIONS:

The following rules and regulations and all subsequent changes in same, or amendments and additions thereto, constitute a part of the contract with every person, corporation, or property owner supplied with water by the Dighton Water District and every such person, corporation or property owner using such supply shall be considered as having expressed consent to be bound thereby.

A copy is available to every customer and can be obtained upon application, and all persons are requested to read same carefully, as failure to know the rules and regulations will not excuse anyone from the consequences of neglect of such rules and regulations.

The meaning and application of these rules and regulations shall be determined and interpreted by the Dighton Water District.

SECTION I

WATER BILLS

WATER BILLS - (information regarding bills):

Bills are prepared by the Water District Office.
Payment: All water bills are payable at the office of the District, 192 Williams St., No. Dighton, Massachusetts within thirty (30) days.
Penalties: Whenever water is turned off under such conditions, it will not be turned on again without payment of all charges due plus a charge of $50.00. If the water is requested to be turned on between the hours of 3:30 P.M. and 7:00 A.M. Monday through Friday, there will be a minimum charge of four (4) hours at a time and one-half rate plus a charge of $50.00. On a Sunday or a Holiday there will be a minimum charge of four (4) hours at a double time rate plus a charge of $50.00.

Takers of water who fail to pay their water bills within thirty (30) days from date rendered, will be charged interest at 1.17% per month. All claims for abatement must be made within ten (10) days from the postage date on bill to the BOARD OF WATER COMMISSIONERS.

Thirty (30) days after the 30 day limit, if payment has not been made, water service will be terminated and Water Lien proceedings will be started as provided by law.

Remittances by mail are at the risk of the sender and must be accompanied by a self-addressed stamped envelope for return of receipted bill.

BILLS RENDERED MONTHLY, SEMI-ANNUALLY OR ANNUALLY:

Water bills are rendered to the owner of the property supplies, Large industrial and manufacturing accounts are billed monthly or semi-annually and residential accounts semi-annually.

PROPERTY OWNERS RESPONSIBLE FOR WATER BILLS:

To insure proper rendering of bills, property owners shall notify the office of the Water District of any changes in mailing addresses. Failure to receive a bill does not relieve the property owner from the obligation of its payment or the payment of penalties subsequently incurred.

RESPONSIBILITY FOR WATER CHARGES:

Customer and property owners shall be responsible for all charges accruing for water service until notice has been given to the Water District by the owner of the property served to discontinue the service or (in the case of a change in ownership of the premises) until notice has been given the Water District of the change of ownership of the premises served. New owners using water at their premises without giving proper notice to the Water District shall be liable and responsible for all water service provided and water used during their ownership of the premises.

Applicants for water service at all premises shall become responsible for all outstanding charges for water furnished to said premises.

SERVICE CALL CHARGE:

Calls that require a service person after normal working hours will be billed to the customer a minimum of four (4) hours at time and one-half rate for calls Monday-Saturday and a minimum of four (4) hours double time rate for calls on a Sunday or a Holiday.

The service charge may be waived by the Board of Water Commissioners upon the recommendation of the Superintendent when he feels the problem to be unavoidable and beyond reasonable control of the customer.

SECTION II

METERS

ALL WATER METERED:

All water from the Dighton Water District system will be supplied through one meter of sufficient size and of standard type with each service connection. It may be located between the curb stop and building. If within the building it must be placed at a point adjacent to the shutoff, where the pipe enters through the foundation wall. All water passing through such meters will be billed to the owner of property supplied, as the same appears in the records of the Water District, whether the water is used or wasted.

Water will not be turned on without the installation of a meter.

The District reserves the right to meter water to the end user. In the event of an apartment complex or condominiums, individual meters for each unit may be required at the discretion of the Superintendent and Board of Water Commissioners.

Adopted revision December 18, 2014

ACCESSIBILITY:

Meters must be easily accessible at all times so that they may be examined and read by employees of the district. They must not be exposed to danger from frost or contamination.

BY WHOM SET:

The installation, repair and disconnection of all meters is to be performed by employees of the Water District only, except as hereinafter provided.

DAMAGED METERS:

If meters are damaged by frost, hot water or external causes, either by carelessness or neglect of the owner or occupant of the premises or his agents, the Water District, except as hereinafter provided, will repair or replace the meter and the owner must reimburse the Water District for all cost of repairs or replacement.

In the case of breakage, stoppage or any other irregularity in the meter, the property owner is to notify the District immediately.

METER TESTING:

Every water meter is carefully tested before it is first installed. Should a property owner at any time question the accuracy of their meter it may be tested by an independent party at the home owners expense only after the District receives the request in writing. A deposit of $40.00 will be required before the meter is disconnected. Should the test show that the meter has been over registering in excess of three (3) percent, the deposit will be refunded.

Meters - large meter testing policy: Meters larger than 6” must be tested every year, 4 1/2” to 6” every two years, 3” to 4” every three years.

To begin the program, all test results must be submitted to the water district office by December 31, 2015. A list of approved meter testers will be provided. If the owner of the meter feels it may be downsized, they can request the district to conduct a usage study at no cost. If it is mutually determined appropriate, then the district will purchase and replace meters up to and including 2". After the installation, the meter is subject to replacement every 15 years by the district. The owner will be assessed a proportionate meter fee going forward every billing cycle. Any meters larger than 2", found to be outside of AWWA specs must be repaired or replaced at the owners' expense.

METER RENTAL:

All seasonal and commercial meters the customer rents from the District shall be billed according to the hydrant rental sheet. (RATES ARE SUBJECT TO CHANGE, PLEASE CALL FOR THE MOST CURRENT RATES.

BILLING NON-REGISTERED METERS:

In case a meter fails to register or has been removed for repairs, testing or other purposes during the billing period, the bill will be issued based on the average daily rate of consumption as shown by the meter after it has been returned to service and is in proper working order.

If the meter has not been returned to service, the bill will be issued based on the average daily rate of consumption for the previous three (3) year period.

NEW CONSTRUCTION METER INSTALLATIONS:

Meter 5/8" through 3/4" will be installed and provided by the District at the property owners expense. Meters 1" and above in size will be purchased by the property owner according to the Districts specifications. The Water District reserves the right to designate the size and manufacturer of the meter to be installed on any service.

METER REPLACEMENTS:

Meters 5/8" through 2" will be purchased and replaced by the District. Any meter over 2" will be purchased by the business owner and tested according to the meter testing regulation.

UNSERVICEABLE METERS:

The Water District reserves the right at all times to remove, test, repair and replace any meter; and if such meter is found to be economically unserviceable, require another meter to be substituted in its place at expense of the Water District.

METER BY-PASS:

All meters larger than 3/4" shall be equipped with a meter and backflow and valve of the same size as the service pipe.

TAMPERING OR DEFACING METERS:

The Water District will prefer charges against every person who Shall tamper or deface a meter and seal to prevent the proper registration of the water consumed by altering the register index or otherwise, or for the breaking of any seal placed by the District for the protection of any meter, valve or fitting.

Adoption of Mass General law Chapter 165, Section 11:

Whoever unlawfully and intentionally injures or suffers to be injured, a water meter belonging to a city, town, district, or company engaged in supplying water, or prevents such meter from duly registering the quantity of water supplied through it, or hinders or interferes with its proper action or just registration, or attaches a pipe to a main or pipe belonging to a city, town, district, or water company, or otherwise uses or causes to be used the water supplied by a city, town, district, or company without the consent of the same, unless it passes through a meter set by such city, town, district, or company, shall be punished by a fine of triple the amount of damages sustained thereby or $1,000, whichever is greater or by imprisonment for not more than one year, or both. Damages shall include the value of the water used and the cost of labor and equipment repair and replacement.

Adopted December 18, 2014

SECTION III

SERVICE PIPES (general)

APPLICATION FOR SERVICE PIPES:

Application for the installation of new service or the update of an old service shall be made by the owner of the property or his authorized agent on forms supplied at the office of the Water District, 192 Williams St., No. Dighton, Massachusetts 02764.

Application for water must state fully and truly the purpose for which same is to be used together with the proper legal description of the property; also the official street and number of the premises to be supplied. A copy of the approved septic system must also be submitted at the time the application for water is completed.

CONNECTION CHARGE FOR SERVICE INSTALLATIONS:

The installation of ALL water services from the water main to the property line, including tapping of the water main, materials and any road repair will be performed by the Water District employees at the owners expense. The owner may have his own contractor perform the work from the property line to the meter location not including the meter installation. Materials are to be acceptable to Water District standards.

The **TOTAL** amount owed the District for the installation **MUST** be paid prior to turning on the water service.

No water services shall be installed on Saturdays, Sundays or holidays.

THIS WOULD NOT APPLY TO SUBDIVISIONS. (CALL THE SUPERINTENDENT FOR CONNECTION CHARGES FOR SERVICE INSTALLATIONS.)

The installation of water services from the water main to the property line, including tapping of the water main, materials and any road repairs can be performed by either the District or an approved contractor. The contractor must provide the District with a copy of an insurance certificate naming the district for the amount of not less than $1,000,000.00 per occurrence and $2,000,000.00 aggregate. Any and all road and trench permits are the responsibility of the contractor and must be provided prior to excavation. The contractor is responsible for his work for 1 year from date of completion.

No new services shall be installed on Saturdays, Sundays, or holidays.
No new services will be installed after Nov. 15th and before April15th

Adopted revision December 18, 2014

OWNERSHIP OF SERVICE PIPE:

The service pipe from the distribution main to the curb stop is owned and maintained by the District. The portion of the service pipe beyond the curb stop to the meter is the property of the owner and is installed and maintained by the Owners contractor/licensed plumber at the owners expense. The plumber must lay his portion of the service in as straight a line as possible from the curb stop to inside the building.

Adopted revision February 11, 2025

MATERIAL FOR SERVICE PIPES:

All service pipes 1" in diameter to and including 2" diameter shall be Dighton Water District approved plastic water service tubing with a minimum of 200 pounds per square inch rating.

Service pipe 4” in diameter and above shall be class 52 cement lined ductile iron pipe manufactured in accordance with AWWA spec.

Adopted revision December 18, 2014

SERVICE LINES:
Tracer wire will be placed from the corporation to the service box with access thru the box.

INSPECTION:

SERVICE PIPES SHALL BE TESTED FOR WATER TIGHTNESS IN THE PRESENCE OF A REPRESENTATIVE OF THE WATER DISTRICT BEFORE BEING COVERED UP. NO SERVICE PIPE SHALL BE LAID IN THE SAME TRENCH WITH A BUILDING DRAIN OR SEWER PIPE. NOR SHALL THE WATER PIPE BE CLOSER TO A SEWER SYSTEM THAN FIFTEEN (15) FEET AT ANY HORIZONTAL POINT. ANY SEWER LINE CROSSING A WATER SERVICE MUST BE AT LEAST TWO FEET BELOW THE WATER LINE AND ENCASED IN A CI OR DUCTILE IRON SLEEVE WITH BOTH ENDS BEING SEALED WITH CEMENT. THE CASING SHOULD BE LONG ENOUGH TO COVER A TEN FOOT WIDTH ON BOTH SIDES OF THE WATER SERVICE. A SEWER LINE RUNNING PARALLEL WITH THE WATER LINE MUST BE EIGHTEEN (18) INCHES BELOW THE WATER LINE.

CURB BOX APPROVED STYLES:

1. Erie style service box with a plug cover and rod
2. Buffalo style service box with lock type cover, rod and centering rod

MAIN SHUT - OFF VALVE:

On every new service pipe, immediately after its entry into the building, shall be an approved type valve. Valves manufactured to conform in all respects with Federal Specifications WW-V-54 Type I Class A as amended to date shall qualify as an approved type. Valves that fail to meet these specifications will be rejected for this class of service. Existing service pipes not equipped with the above type of valve, when renewed or replaced shall conform with the requirements for new service pipe.

HORIZONTAL METER SETTING:

All small meters on new installation shall be set approximately twelve (12) inches above the floor, in a horizontal position, immediately after the main shut - off and as near to where the service pipe enters the building as is practicable. The plumber shall provide an approved support for the meter. Large meters may be set directly on the floor.

Whenever it is necessary to renew or replace a service pipe, the meter shall be reset to conform with the requirements for new installations.

BACK FLOW AND GATE VALVES:

All new services shall be equipped with an approved type of DCVA and gate valve immediately following the meter setting on the house side, to act as a back valve and prevent the house piping from emptying while the meter is being changed or for other work on the service pipe. Valves manufactured to conform in all respects with Federal Specifications WW-V-54 Type I Class A as amended to date shall qualify as an approved type. Valves that fail to meet these specifications will be rejected for this class of service.

Existing service pipes not equipped with the above type of valve, when renewed or replaced shall conform with the requirements for new service pipes.

TAPPING MAINS:

Only persons authorized by the Superintendent of the Water District will be allowed to tap mains or distribution pipes, insert corporation stops, or interfere with water gates or curb stops

Adopted revision December 18, 2014

As of May 27, 2004 the District voted any person requesting and receiving approval at any meeting of the District to extend a water main to their property will be required to pay for such an extension. All fees involved may be requested from the Superintendent.

REPAIRS TO PROPERTY OWNER'S SERVICE PIPE AND FIXTURES:

Property owners must keep their own pipes and all fixtures connected thereto in good repair and protected from frost at their own expense. In case of a break, the portion of the service pipe beyond the curb stop to the meter is the property of the owner and is installed and maintained by the owners contractor/licensed plumber at the owners expense. The District is to be notified of any repairs made after the curb stop. Failure to make repairs at once or to obtain the necessary permits covering these repairs shall be sufficient cause to shut off the supply.

Adopted revision February 11, 2025

CLEANING SERVICE PIPES:

Property owners desiring this service must submit their request in writing, and agree to take all responsibility for the cost of replacing the service in case it is broken.

SIDEWALK PERMITS:

No sidewalk or other public place shall be open for the laying of service pipes until the property owner has obtained a permit from the proper town or state agency.

WATER METER PITS:

If the owner must install a meter pit, the owner must submit a sketch of plans for installing the pit which must be approved by the Board of Water Commissioners.

The Water District will require meter pits on all services 150’ or greater. Only approved meter pits from Ford or Mueller will be allowed. The pit will be located after the curb box. The District suggests the line leaving the pit be a minimum of 1 ¼” in dia. There are to be no obstructions on or around the meter pit or its cover.

Adopted revision December 18, 2014

SECTION IV

TEMPORARY SERVICES

FOR BUILDING AND OTHER CONSTRUCTION PURPOSES:

Contractors, builders, etc., requiring water for construction purposes, shall make application for a temporary service and will be subject to the same rules and regulations as apply to regular service installations. A meter will be installed on the temporary service by the Water District and the cost of the meter plus the cost of setting same shall be borne by the applicant. Temporary services will be subject to the connection charge described in Section III, plus the cost of removing the service.

All charges, including the connection charge, cost of removing the service, cost of meter and setting the meter, shall be paid in advance; and the applicant shall be required to deposit a sufficient

sum of money with the Water District to cover the cost of the estimated amount of water to be used in conjunction with the work. If at any time during the course of construction, the estimated amount of water covered by the deposit is below the actual consumption shown on the meter, the applicant will be required to deposit additional sums with the Water District. (CALL THE DISTRICT OFFICE FOR THE LATEST FEES)

SECTION V

MAIN PIPE

DISTRIBUTION MAIN:
Distribution mains are water pipes laid in the streets as feeders for consumers services and hydrants.

WATER MAIN EXTENSIONS:
No water main extension will be less than eight (8) inch pipe of material approved by the Board of Water Commissioners. Final determination of size of pipe will be made by the Board of Water Commissioners.

PLANS TO BE APPROVED:
Plans of proposed water main extensions shall be submitted to the Board of Water Commissioners to be approved. Construction shall not be performed without plans that have been approved by the Board of Water Commissioners.

FINANCING EXTENSIONS:
In all cases where approval is granted by the Board of Water Commissioners for water main extensions, the owner(s) shall assume all costs for material and installation according to the plans and materials approved by the Board of Water Commissioners.

PRIVATE PIPE PROHIBITED:
Applications for permission to connect private pipes or mains to the distribution system, whether the request is made by an individual or a group of individuals, will be rejected. All services must be supplied from the District's own distribution or supply mains.

SECTION VI

FIRE SUPPLIES:
The Water District may render a special service to private property for private fire protection purposes.

Applications must be made by the owner of the property or his authorized agent and will be subject to all the provisions, including the connection charge, described in Section III entitled "SERVICE PIPES (general)" as far as they apply to this type of service.

DRAWINGS:
The applicant must furnish a complete and correct drawing or set

of drawings showing the location of the premises to be supplied, together with location of all valves, pipes, hydrants, tanks, sprinkler heads and other appurtenances on the premises at the time of making application. The plans will remain the property of the Water District.

The applicant also agrees to furnish the Water District with drawings showing revisions to piping or appurtenances whenever the same are made.

ANNUAL CHARGES - UNMETERED EXCEPT FOR BY-PASS:

The annual charge for this fire service shall be made in accordance with the following schedule, based upon the size of the service connection.

Fire protection service, sprinkler or private hydrant(s):
4" pipe serviced to property, annually $
6" pipe serviced to property, annually $
8" pipe serviced to property, annually $

Charges for fire service supplies shall be payable in advance of the date of installation, pro-rated for the remainder of the billing year and then annually in advance on the regular billing period for this type of service. **CALL SUPERINTENDENT FOR RATES**.

INSTALLATION TO BE APPROVED BY DISTRICT:

The Water District expressly reserves the right to determine the necessity for and the advisability of granting any application for this special service and the right to determine the size of the service pipe which will be granted, depending upon the size of the street main, the available pressure on the main and the nature and capacity of the fire protection equipment within the building.

CONNECTION TO DOMESTIC SERVICE PROHIBITED:

No connection shall be made at any time between the fire supply system and the regular water supply to the premises. Valves placed on this system shall be of a style that can be sealed by the District.

NUMBER OF SERVICES:

One (1) service only will be allowed to any one (1) building or premises, unless in the opinion of the Water District, more than one (1) is absolutely necessary for the proper protection of the premises. All fire protection equipment connected to the service shall be confined within the building or where two (2) or more connections are made for one (1) building or premises, they shall be kept separated, unless special permission is obtained from the Water District to connect the same in a manner to be approved by said District.

USE OF SERVICE:

No water shall be drawn from the fire service pipes except for the extinguishment of fires. This paragraph is not to be construed

as prohibiting a reasonable use of water for fire drills, draining of system to prevent freezing or other reasonable use in connection with proper fire protection. Whenever water is used for this purpose, either by the owner or the insurance inspector making the test, the owner shall obtain a reading on the meter before and after the test and forward this information, together with a brief description of the operations resulting in the use of water to the Water District.

CROSS CONNECTIONS:

NO CROSS CONNECTINS ARE PERMITTED WITHIN THE DISTRICT.

Any fire protection system supplied with water from the District service shall be supplied exclusively with such water and no connection will be allowed with any other system drawing its supply from any other source whereby the water supply may be subjected to contamination.

Any fire protection system using water from any other source that the District's service shall be kept entirely separate from any such system supplied from the District service.

INSPECTION:

All fire services shall be protected by an approved backflow and subjected to annual and semi-annual inspection as required by a licensed inspector. The owner shall give the inspector all reasonable facilities for making the survey and any information concerning same that they may require. Care will be taken that inspections will be made with as little inconvenience to the owner as possible.

ILLEGAL USE:

When the owner (s) or occupant (s) of any premises are found to be using water from a fire service for other purposes than fire protection, the water shall be shut off from same until the offender (s) shall give reasonable assurance before the Water District that the offense will not be repeated.

VALVES:

On the inlet and discharge side of each fire line compound meter or detector check valve, the owner shall install a gate valve manufactured to conform in all respects with the American Water Works Specifications for Gate Valves for Ordinary Water Works Service as amended to date. The valves shall be of a type that meets the requirements of the National Board of Fire Underwriters.

On detector check valve installations with meter in by-pass, the owner (s) shall install a gate valve on the inlet side of the by-pass meter that conforms in all respects with Federal Specifications WW-V-54 Type I Class A as amended to date. On the discharge side of the by-pass meter, the owner shall install a horizontal bronze swing check valve with a metal disc, designed for a working pressure of 125 pounds per square inch for steam or 200 pounds per square inch for oil, water or gas.

VIOLATIONS OF RULES:
For any violation of the rules governing fire supplies, the Water District may discontinue the use immediately.

SECTION VII

FIRE HYDRANTS

HYDRANTS ARE PROPERTY OF THE WATER DISTRICT:
All public fire hydrants and their connections are installed and maintained by the District and remain a part of the water works system.

OBSTRUCTING FIRE HYDRANT:
No person shall obstruct the access to any fire hydrant by placing or permitting any snow, debris, building material or other obstruction to remain on or about a hydrant which will in any manner interfere with its immediate use.

USE OF HYDRANT:
Public fire hydrants are installed for the sole purpose of fire protection and with the exception of the members of the Fire Department operating the same for the legitimate purpose of extinguishing fire, no other use of such hydrants shall be made without written consent of the Water District.

APPROVED HYDRANTS:
The following fire hydrants are approved for use within the District:

Mueller Super Centurion 250
Clow Medallion
U.S. Pipe Sentinel 250

Adopted revision December 18, 2014

SECTION VIII

GENERAL

CROSS CONNECTIONS PROHIBITED:
No licensed plumber or others shall cause a physical connection to be made between the Dighton water supply and any other water supply for commercial, domestic, sanitary, fire protection or boiler feed purposes or any other purpose whatsoever.

No water closet, urinal bowl or any other fixture shall be supplied directly from the District's water system through a flushometer or other valve unless such valve is set above the water closet or urinal bowl or other fixture in such a manner as to prevent any possibility of back siphonage or pollution.

No plumbing fixture, device or construction shall be installed which will provide a cross connection between the District's supply

and a drainage system, soil or waste pipe so as to permit or make possible the backflow of sewage or waste into the supply system. Draw-off pipes for draining sprinkler systems shall not be connected into a drainage system or a submerged pit.

If the District's water supply is delivered to a tank which is also supplies with water from any source other than the public water system, such tank shall be open to atmospheric pressure and the District's water supplied above the maximum level of water. There shall be at least six (6) inches between the invert of the pipe supplied with the District's water and the maximum level.

In the District's water supply is delivered to a tank in which there are chemicals, dyestuffs or other materials used in processing, the pipe supplied with District water shall not be submerged. There shall be an air gap twice the feed line no less than one inch above the rim of the tank to prevent back siphonage into the public supply.

PUMP CONNECTION:

No pump shall be directly connected to any District main or service for the purpose of increasing the water pressure in the District or owner's system unless prior written authorization and approval has been obtained from the Dighton Water District.

LAWN AND/OR GARDEN WATERING SYSTEMS:

Installation of new Underground or concealed lawn and/or garden watering systems of any type tied into Town water are prohibited.

DISHWASHERS AND LAUNDRY MACHINES:

Direct water supply to dishwashers and laundry machines shall be equipped with an approved vacuum breaker and a check valve located between the vacuum breaker and the fixture. The vacuum breaker shall be located at least four (4) inches above the highest elevation of the machine.

WATER DISTRICT NOT LIABLE FOR INTERRUPTION IN SERVICE OR DAMAGE RESULTING THEREFROM:

The Dighton Water District furnishes water and not pressure and does not guarantee a continuous supply. No responsibility will be assumed for any damage to any apparatus in any house or building due to the shutting off of water without notice, either for repairs on account of a break in the pipe lines or other necessary operations.

No person shall be entitled to damages, nor to have any portion of a payment refunded for any stoppage of supply occasioned by accident to any portion of the works; nor for stoppage for purposes of additions or repairs; nor for non-use occasioned by absence or any other reason.

NOTICE OF INTERRUPTION OF SERVICE NOT REQUIRED:

While it is the intention to give notice, as far as possible, in advance of any work which must be done that will necessitate

interruption of the supply, such notice is to be considered a courtesy only and not a requirement on the part of the Water District. In case of a break in pipe lines, water will be shut off at any time without notice.

Failure of tenant or property owner to receive notice of interruption of service shall entail no responsibility on the part of the Water District or its employees. Property owners must so install range boilers, hot water tanks and other installations connected with the water system with adequate safeguards so the damage will not occur if the water is shut off without notice.

UNAUTHORIZED USE OF WATER:

The Dighton Water District will prefer charges in accordance with the General Laws of Massachusetts against every person who shall without proper authorization from the Water District tap or make any connection with any street main or service or other distributing pipe connected with the water system; or who shall without such authorization open any gate valve connected with said system so as to obtain water from said system or for the purpose of obtaining such water; or who shall in any way or by any device obtain the use of such water without authorization.

RE-SALE OF WATER:

No consumer, except with the written consent of the Water District previously obtained, will be allowed to furnish water to other persons or property or to suffer such persons to take it themselves. Violations of this regulation cause the supply to be shut off and the water already paid forfeited.

WATER CHARGES TO ONE PERSON:

When water shall be supplied to more than on (1) party, through a single service, the bill for the whole supply furnished through such service will be made to the owner of the property.

WATER WASTE:

Water must not be allowed to waste through any faucet or fixture or kept running any longer than necessary in its proper use. The District is required to restrain and prevent any and all wastage of water; and, to that end, may, when necessary, turn off the water or take such other action as in its judgement may be proper.

RIGHT TO MAKE INSPECTION:

Inspectors of this District or any person authorized by the Water District, must have free access at all reasonable hours to all parts of every building, for the purpose of inspecting, removing or replacing meters, examining water fixtures and observing the manner in which the water is used.

REQUEST FOR TURN ON:

After service has been shut off for any reason except repairs, it shall not be re - established unless a written order is given the District by the property owner or his authorized agent.

REFUSAL TO GIVE SERVICE:

No water shall be furnished to any property which is in debt to the Dighton Water District for water service.

PENALTY FOR VIOLATION OF RULES:

If the owner, agent, lessee, tenant or person in charge of any premises, shall violate any rule or regulation of the Water District affecting said premises, and shall fail to remove any violation(s) or comply with any written order of said District pertaining thereto within (30) days after such order(s) shall have been sent by mail to the last known address of such person, said District may discontinue service to such premises.

If water service is discontinued, it shall not be resumed until the rule or regulation so violated shall have been complied with to the satisfaction of said District. If the service is requested to be turned on after 3:30 P.M. and before 7:00 A.M., there will be a Service Charge of a minimum of four (4) hours at time and one-half rate for work done Monday-Friday, and a minimum charge of four (4) hours at double time rate for Sundays and Holidays.

The Water District Commissioners reserves the right to make such amendments to the rules and regulations as may be necessary for the preservation and protection of the Dighton Water District supply system.

SUGGESTIONS TO CONSUMERS

THE WATER METER:

Consumers are advised to learn to read the meter in order that they may verify the meter reading appearing on the bill. The meter will not tell how the water was used; but it will honestly tell if consulted at any time, how much is being used or wasted. Its function is to protect the District against the enormous loss from waste or extravagant use, and to fix the charge to consumers according to the services received.

All meters used throughout the District's system are read in gallons only.

WASTE AND LEAKAGE OF WATER:

If a meter suddenly shows an increase in consumption, with no apparent cause, one of the two (2) things has happened: a leak has started or water has been allowed to run to waste.

Waste and leakage of water is an economic waste, not only to the customer who pays much larger water bills than he should, but to the Water district as well, who must provide a plant of sufficient capacity to meet water demands resulting from leakage and waste in addition to the normal requirements of its consumers. Conservation of water results in indirect savings to the consumer. It eliminates large capital expenditures required in expanding the supply, either

at its source or in the distribution system to meet unusual demands from leakage and waste.

DETECTION OF LEAKAGE:

The flow of water from all fixtures supplied by the meter should be shut off and the pointer on the circle marked "ten gallons" observed for a period of ten or fifteen minutes. If the pointer moves, a leak is indicated, the size of which mat be determined by timing the pointer. If the pointer moves on -fourth (1/4) of the way around in fifteen minutes, it represents a waste of 240 gallons per day or 87,600 gallons per year. If the leak cannot be located, a licensed plumber should be called as the Water District is not authorized to do work on private property.

CHAPTER 359
Acts of 1950

SECTION I:

The Water Supply Board of the Dighton Water District, or their successors in office to be known as the Board of Water Commissioners as provided in Chapter 359 of the Acts of 1950, entitled, "An Act establishing the Dighton Water District", whenever they shall adjudge it to be necessary, are hereby authorized to lay and construct water mains in any of the streets of said district, the cost and expense of which shall be paid in a manner hereinafter provided.

SECTION II:

The Water District reserves the right to make such amendments to the rules and regulations an may be necessary for the preservation and protection of the Dighton Water District water supply system.

No new service pipe or extension of pipe shall be laid during the winter months, if in the opinion of the Superintendent, the cost would be greater than if the work was done during the warmer seasons.

EMERGENCY RULES AND REGULATIONS FOR USE OF WATER

Whenever the Superintendent shall declare that an emergency exists relative to the adequacy of the supply of water for public use and consumption, and such declaration of emergency shall be confirmed and acknowledged by the Commissioners, the Superintendent shall be empowered to establish such rules and regulations restricting the use of water as in his judgement the circumstances may require; provided, however, that before such rules and regulations shall be enforced, they must be approved by the Water Commissioners.

CROSS CONNECTION CONTROL ORDINANCE

I. PURPOSE:

A. To protect the public potable water supply served by the Dighton Water District from the possibilities of

contamination or pollution by isolating such contaminants or pollutants which could backflow or back siphon into the public water system.

B. To promote the elimination or control of existing cross connections, actual or potential, between its' customers in-plant potable water system and non-potable system.

C. To provide for the maintenance of a continuing program of cross connection control which will effectively prevent the contamination or pollution of all potable water system by cross connection.

II. AUTHORITY:

A. As provided in the Federal Safe Drinking Water Act of 1974, (Public Law 93-523), and the Commonwealth of Massachusetts Drinking Water Regulations, 310 CMR 22.22, the water purveyor has the primary responsibility for preventing water from unapproved sources or any other substances from entering the public potable water system

B: The Dighton Water District's Rules and Regulations, adopted October 11, 1994.

C: The Dighton Water District's Rules and Regulations, revised January 15, 2003.

D: The Dighton Water District's Rules and Regulations, revised October, 11, 2005.

E: The Dighton Water District's Rules and Regulations, revised June 6, 2006.

F: The Dighton Water District's Rules and Regulations, revised December 18, 2014

G: The Dighton Water District's Rules and Regulations, revised November 7, 2019

H: The Dighton Water District's Rules and Regulations, revision February 11, 2025

III. RESPONSIBILITY:

A. The Water Commissioners shall be responsible for the protection of the public potable water distribution system from the contamination or pollution due to the backflow or back siphonage of contaminants or pollutants. If, as a result of a survey of the premises, the Commission determines that an approved backflow prevention device is required at the District's water service connection or as in-plant protection on any customer's premises, the Commission, or its delegated agent, shall issue a cross connection violation form to said customer to install

approved backflow prevention devices. The customer shall, within a time frame determined by the Commission, install such approved device or devices at his own expense, and failure or refusal or inability on the part of the customer to install said device or devices within the specified time frame shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed.

ADOPTED: 12/12/95
Joseph White. Chairman
Joseph Lawrence
James Davitt

REVISED: JANUARY 15, 2003
REVISED: OCTOBER 11, 2005
REVISED: JUNE 6, 2006

Michael Perry, Chairman
Frank G. Costa
Kenneth Araujo

REVISED: DECEMBER 18, 2014
Edward Swartz, Chairman
Jeffrey Cloonan
Susana Medeiros

REVISED: NOVEMBER 7, 2019
Edward Swartz, Chairman
Derek Lach
Jason Quinn

The Board of Commissioners reserves the right to make such amendments to the rules and regulations as may be necessary for the preservation and protection of the Dighton Water District. Please call the Dighton Water District Office for any changes or updates to the rules and regulations, rates, fees, etc…. The Dighton Water District Office phone number is 508-824-9390.

Subdivision Specifications Changes

Hydrant specs: Mueller Super Centurion 250, Clow medallion, and U.S. Pipe Sentinel 250 are all accepted by the district. These are the only accepted hydrants to be installed. Hydrant specs break flange construction with one 4 1/2" pumper nozzle, and two 2 1/2" hose nozzles. Maximum bury depth 5'6" to finish grade.

Water mains: Class 52 Ductile Iron pipe material is the only main material accepted to be installed within the district. This pertains to all mains 4" and larger. Sand must be used to provide at least 1' of cover on top and at least 6" below the pipe. The water mains must be placed off the bituminous surface of the roadway. The mains can be

placed in the buffer strip or grass area within the street layout. Mega lug type pipe restraints must be used on all fittings and valves attached to the DI pipe. Maximum bury depth to finished grade is not to exceed 5'6". Pipe must be pressure tested and disinfected according to AWWA standards. Bacteria samples must be collected and pass AWWA standards prior to opening any gate valves or activating service to provide water within any subdivision.

Adopted December 18, 2014

Adopted November 7, 2019

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DOCUMENT A00808

PROJECT UTILITY COORDINATION FORM

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Project Utilities Coordination (PUC) Form

CONTACTS AND GENERAL UTILITY INFORMATION

6/8/2026
Revision Date:

City/Town:	Project File #:	PUC Completed by:	Utility Pole Set:	
Dighton	613636		NGRID-Electric	
Route/Street:	**Resident Engineer:**	**Mass DOT PM:**	**Scheduled Ad Date:**	**Total Poles Relocated:**
Pleasant Street Over Muddy Cove		Greg Frazier	8/15/2026	4

6/8/2026 PRINTED

Consultant:	Contact:	Office #	Ext #	Email
BETA Group	Todd Warzecki	(401) 333-2382	x7019	TWarzecki@BETA-Inc.com

Utility Company	Contact	Office #	Cell #	Email	Scope, Budget, Duration Submitted		Reimbursement			Potential for District Initiated Early Relocation *		Utilities On Bridge/Structure		Utilities Underground (UG) /Aerial (OH)	
					Yes	No	Agreement	Non-Reimb'le	Notes	YES	NO	YES	NO	UG	OH
NGRID-Electric	Tochukwu Okafor		(781) 437-5157	tochukwu.okafor@nationalgrid.com	x		50%				x		x		x
Verizon	Evan McSorley	(774) 409-3184		evan.mcsorley@verizon.com	x			NA	Verizon not seeking reimbursment per email dated 07/23/2025		x		x		x
Comcast	Wendy Brown	(978) 848-5163		Wendy_Brown@comcast.com	x		50%				x		x		x
Eversource-Gas	Brendan Pitts	(508) 895-4818		brendan.pitts@Eversource.com	x		50%				x	x		x	

Utility Relocation Notes for MassDOT Contractor

Unless otherwise noted by Contract, the MassDOT Contractor is to provide the District Construction Office with 7 Calendar Days advance notification in order to validate the current progress and provide the required 30 Days advance notice-to-proceed for the first Utility - and each subsequent Utility. These advance notifications are to be identified in the Contractor's Schedules (Pre-Con preparation, Baseline, Subnets, and Updated/Monthly Schedules) as specified in Subsection 8.02 (for DBB Contracts) and/or Section 9 (of DB Contracts). Note: The durations included below do not include these lead-times. See Additional 'Important Basis notes for Contractor' - on last PUC Form page.

Additional notes:

Suggested Sequence of Relocation (Based on Consultant proposed construction staging)

The sequence as detailed on the following pages is based on the consultants proposed staging plan. This information was compiled through meetings that included all of the utilities listed below along with the designer and the Town of Dighton . The information provided is the best available information prior to project advertisement.

PUC FORM - CONTINUED

Is 'enabling' (prep) work, by the Contractor, necessary prior to the start of the first series of utility relocations:	Yes	No
	x	

Has any of the Utility work been identified to work concurrently	Yes	No
		x

6/8/2026
PRINTED

massDOT Massachusetts Department of Transportation Highway Division

	RESPONSIBLE PARTY		DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work				Access Restraint & Limitations of Operations Notes	
					Contractor note: In planning and executing the work, the Access Restraints listed in the Special Provisions, takes precedence over the checklist in these 4 columns.				Should an AR be considered for the Contractor ?	
	C = Contractor	U = Utility Co.			Exclusive Utility on site: Utility working with no other Utilities in vicinity	Concurrent Utilities: Utility working with other Utilities on site	Contractor Off-Site: No Contractor physical construction operations on-site (while Utility is	Contractor Concurrent: Contractor and Utility are working on-site - but NOT in the same vicinity	Potential Access Restraint (Yes/No)	Reason/Note (optional)
			>Contractor to notify the Utilities 30 days prior to the start of any work. >Contractor to perform clearing & grubbing, tree trimming, and required slope work..							
			Temporary Overhead							
Task: 1			***NGRID-Electric***							
		U	NGRID-Electric - Site readiness: Dig-safe, pre-checks, etc	10	x			x		
		U	NGRID-Electric - Poles / Anchors : Ins talling 4 poles & 4 anchors & guys and ins talling 1 pus h brace	15	x			x		
		U	NGRID-Electric - Primary conductor: Working on about 400ft primary wire	20	x			x		
		U	NGRID-Electric - Secondary/ Services : Working on about 400ft s econdary wire	15	x			x		
			Sub-Total	**60**						
Task: 2			***Comcast***							
		U	Comcast -Relocate Aerial hardline/strand due to bridge replacement as needed.	5	x			x		
			Sub-Total	**5**						
Task: 3			***Verizon***							
		U	Verizon - Transfer of OHW's to temporary relocated poles.	3	x			x		
			Sub-Total	**3**						

	RESPONSIBLE PARTY		DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work Contractor note: In planning and executing the work, the Access Restraints listed in the Special Provisions, takes precedence over the checklist in these 4 columns.				Access Restraint & Limitations of Operations Notes Should an AR be considered for the Contractor ?	
	C = Contractor	U = Utility Co.			Exclusive Utility on site: Utility working with no other Utilities in vicinity	Concurrent Utilities: Utility working with other Utilities on site	Contractor Off-Site: No Contractor physical construction operations on-site (while Utility is	Contractor Concurrent: Contractor and Utility are working on-site - but NOT in the same vicinity	Potential Access Restraint (Yes/No)	Reason/Note (optional)
			>Contractor to notify the Utilities 30 days prior to the start of any work. >Contractor to perform clearing & grubbing, tree trimming, and required slope work. >Contractor to construct eastern portion of bridge, and provide the permanent pathway for gas to be relocated to.							
			Permanent Overhead							
Task: 1			***NGRID-Electric***							
		U	NGRID-Electric - Site readiness: Dig-safe, pre-checks, etc	10	x			x		
		U	NGRID-Electric - Poles / Anchors : Ins tall 1 pole & Remove 4 anchors & guys and Remove push brace	15	x			x		
		U	NGRID-Electric-Primary conductor: Working on about 325ft of primary wire	15	x			x		
		U	NGRID-Electric-Secondary/ Services : Working on about 325ft s econdary wire and about 100ft of service wire	10	x			x		
			Sub-Total	**50**						
Task: 2			***Comcast***							
		U	Comcast - Activating new Coax hardline.	5	x			x		
		U	Comcast - Wreakout old cable.	2	x			x		
			Sub-Total	**7**						
Task: 3			***Verizon***							
		U	Verizon - Transfer of OHW's to permanently relocated poles.	3	x			x		
			Sub-Total	**3**						
			Permanent Underground							
Task: 1			***Eversource-Gas***							
		U	Eversource-Gas - Relocate ~175 LF of new 2” high density polyethylene high pressure gas main to be installed on the new bridge within a 4” steel casing spanning the Muddy Cove adjacent to the Taunton River.	27	x			x		
		U	Eversource-Gas - Isolate, purge out of service, and abandon in place the ~135 LF of existing 2” coated steel gas main currently spanning the existing bridge to be demolished.	8	x			x		
			Sub-Total	**35**						

IMPORTANT BASIS NOTES - FOR CONTRACTOR

1	Unless otherwise specified in the MassDOT Construction Contract, or unless specifically noted within this PUC Form, these durations (herein) are based upon the Contractor providing *unimpeded access* to the Utility company to perform Utility relocations (see Note 5 - Access).
2	"Concurrent Utilities" operations noted herein, are to signify those Utility Company operations that can be worked concurrently (e.g. Utility A and Utility B work on-site together) - MassDOT and the Contractor are to prepare NTPs to Utilities accordingly.
3	"Potential Access Restraints" noted within this PUC Form are for planning purposes. See MassDOT Contract for Contractual Access Restraints (refer to Subsections 8.02, 8.03, and/or 8.06 for Design Bid Build Contracts and Volume II Section 9 for Design Build Contracts).
4	Utility non-work periods - For planning purposes, the durations above contain some non work days (contingency) for New England conditions (precipitation, high temperatures, low temperatures, snow, ice). Gas line work however, typically has a seasonal restriction and can NOT be installed from 15-November to 15-March. Municipally Owned Electric and Gas Utilities are also restricted from proceeding from 15-November to 15-March. The Contractor shall (and the CTD plan) reflect this calendar restriction within the schedule (unless otherwise note).
5	Access - Unless otherwise noted in the Contract, and in addition to the 'enabling' notes above, the Contractor must provide safe and unimpeded access (for trucks, lifts, cranes, etc.) to the Utilities, to allow for the proposed relocation(s) - including but not limited to snow removal, clearing and grubbing, guard rail removal, barrier removal, tree removal, and grading.
6	For all MassDOT construction contracts issued after January 2014, the new Utility Coordination/documentation specification is required. This is Section 8.14 in Design-Bid-Build Contracts (see Design-Build index reference for applicable section #).
7	Prior to starting any and all enabling work for Utilities, the Contractor is to plan in advance with submittals and approved durations.
8	* Potential District Initiated Early Utility Relocation - if noted herein, the District reserves the right to initiate early utility relocation in advance of the Contract NTP. In submitting a bid price and in the development/basis of the Baseline Schedule, the Contractor shall not plan the Work with the potential benefit of any form of 'early utility relocation.' As a requirement of the Baseline submission, unless otherwise noted in this Specification, the earliest that the first Utility company is to receive the 30 days advance notification to mobilize to the site, will be 7 calendar days after the pre-construction meeting and never sooner than 7 days after the Contract NTP.
9	** Assumed Duration, Not Provided By Utility Company.

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DOCUMENT A00810

MassDOT Herbicide Use Report

Proposal No. 613636-136482

MassDOT Herbicide Use Report

Date Submitted:

Use multiple sheets for multiple application techniques or sites as needed.

Contractor Performing Work:

Project or Contract No:

Town/s:

Associated Route:

Project Description:

MDAR ALERT*:

Treatment Description:

Area Treated (as applicable)

Acres: **Sq Yds:** **Miles:**

Weeds Targeted:

Gallons Formula Used:

Application Method:

Date/Time Began:

Date/Time End:

Product Used:

Name: _____	Name: _____	Name: _____
EPA Reg. No: _____	EPA Reg. No: _____	EPA Reg. No: _____
% Active Ingredient	% Active Ingredient	% Active Ingredient
Dry: _____	Dry: _____	Dry: _____
Liquid: _____	Liquid: _____	Liquid: _____
Formulation (dilution rate): _____	Formulation (dilution rate): _____	Formulation (dilution rate): _____

Additional products used (surfactants, etc.) or other information:

Applicators: **License Numbers:**

* Please note:
EDRR Species (MAM, Hogweed, Pepperweed, Kudzu, etc.)
Tree of Heaven 1) stands of >20 trees; 2) >5 trees near nursery, landscape company, or highway rest area where trucks stop

Upon completion, please submit form to MassDOT District Engineer and Landscape Design Section in Boston office.

07/18/2018

DOCUMENT A00820

Massachusetts Department of Transportation
Conditions of Custody

REQUEST FOR RELEASE OF MASSDOT AUTOCAD FILES FORM
(Only to be used following award of contract)

City/Town: DIGHTON Project File Number: 613636

Contract Number: 136482

Project Description: Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove

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This signed form shall be emailed to the Highway Design Engineer at the MassDOT -Highway Division at the following email address:

DOTHighwayDesign@dot.state.ma.us
Attn: AutoCAD Files

Name of person requesting AutoCAD files: _____

Affiliation/Company: _____

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Telephone number: _____

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ARMY CORPS OF ENGINEERS

GENERAL PERMIT

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General Permit No.: NAE-2022-02649 Final Effective Date: June 2, 2023
Applicant: General Public, Commonwealth of Massachusetts Expiration Date: June 1, 2028

Department of the Army
General Permits for the Commonwealth of Massachusetts

The New England District of the U.S. Army Corps of Engineers (USACE) hereby issues twenty-five (25) regional general permits (GPs) for activities subject to USACE jurisdiction in waters of the U.S., including wetlands, navigable waters within the Commonwealth of Massachusetts and adjacent ocean waters to the seaward limit of the outer continental shelf. The Massachusetts GPs (hereafter referred to as the MA GP or GP) are issued in accordance with USACE regulations at 33 CFR 320 – 332 [see 33 CFR 325.5(c)(1)]. These GPs establish criteria and contain permit conditions to ensure that the authorized activities have no more than minimal individual and cumulative adverse impacts to the environment.

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In issuing these GPs, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest; (c) damages to persons, property or to other permitted or unpermitted activities or structures caused by the activity authorized by any of the GPs; (d) design or construction deficiencies associated with the permitted work; or (e) damage claims associated with any future modification, suspension or revocation of these permits.

Tammy R. Turley 02 June 2023

Tammy R. Turley Date
Chief, Regulatory Division

SECTION I. STATUTORY AUTHORITES & REGULATED ACTIVITIES

1. Work Requiring USACE Authorization

a. Section 10: Work and structures that are located in, over, under or that affect navigable waters of the United States (U.S.) (see 33 CFR 329). The USACE regulates these activities under section 10 of the Rivers and Harbors Act of 1899 (see 33 CFR 322).

b. Section 404: The discharge of dredged or fill material into waters of the U.S (see 33 CFR 328). The USACE regulates these activities under Section 404 of the Clean Water Act (CWA). The term "discharge of dredged or fill material" also includes certain discharges resulting from excavation. Applicants should contact USACE to determine if a particular excavation discharge occurring within waters of the U.S., is a regulated activity. See 33 CFR 323.4 of the CWA for exempted activities.

For additional information on the limits of USACE jurisdiction, please see: https://www.nae.usace.army.mil/Portals/74/docs/regulatory/JurisdictionalLimits/Jurisdictional_Limits_Brochure.pdf

2. Authority to Issue General Permits

a. In accordance with 33 CFR 322.2(f), 325.2(e)(2), and 325.5(c), USACE may issue regional general permits authorizing activities under Section 10 of the RHA.

b. In accordance with Section 404(e) of the CWA, 33 USC 1344(e), and 33 CFR 323.2(h), 325.2(e)(2), and 325.5(c), after notice and opportunity for public hearing, USACE may issue regional general permits for any category of activities involving discharges of dredged or fill material if the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will only have minimal cumulative adverse effect on the environment.

3. Related Laws

33 CFR 320.3 includes a list of related laws including, but not limited to, Section 408 of the Rivers and Harbors Act of 1899, Section 401 of the Clean Water Act, Section 402 of the Clean Water Act, Section 307(c) of the Coastal Zone Management Act of 1972, Section 106 of the National Historic Preservation Act of 1966, Section 7 of the Endangered Species Act, the Fish and Wildlife Coordination Act of 1956, the Magnuson-Stevens Fishery Conservation and Management Act, the Fish and Wildlife Coordination Act, Section 302 of the Marine Protection, Research and Sanctuaries Act of 1972, Section 7(a) of the Wild and Scenic Rivers Act, the Golden Eagle Protection Act, and the Migratory Bird Treaty Act.

SECTION II. REVIEW CATEGORIES & APPLICATION PROCEDURES

To qualify under these GPs, the design, construction, and maintenance associated with each proposed activity must meet the terms and eligibility criteria listed in Section III, all applicable general conditions (GCs) in Section IV, and any specific mitigation requirements in Section V. Applicants should first review the GPs to see if a project is eligible for authorization under one or more of the GPs within this document. Any activity not specifically listed may still be eligible for authorization under these GPs; applicants are advised to contact USACE for specific eligibility determination.

Please note that these GPs allow for Self-Verification (SV) contingent upon meeting all criteria and with full adherence to all GCs. Projects that do not qualify for SV, may meet criteria for Pre-Constriction Notification (PCN). Tables are provided under each activity, which outline criteria for SV and PCN. Activities that do not meet criteria for SV or PCN may require review as an Individual Permit (IP). Activities may require a PCN or IP as noted in Sections III and/or IV of this GP. Notwithstanding compliance with the terms of these GPs, USACE retains discretionary authority to require either PCN review or IP review on a case-by-case basis for any project based on concerns for the environment or for any of the other public interest factors found in 33 CFR 320.4(a). These GPs also do not replace or change those activities identified as exempt from USACE regulation (33 CFR 323.4).

1. Pre-Application Assistance

Prospective applicants may request a pre-application meeting to address any questions they may have. USACE may also request a pre-application meeting or additional information to facilitate review of the request. Pre-application meetings and/or site visits help streamline the authorization process by alerting the prospective applicant to potentially time-consuming factors that may arise during the evaluation of their project (e.g., avoidance, minimization and compensatory mitigation requirements, historic properties, endangered species, essential fish habitat, impacts to federal projects, and/or dredging of contaminated sediments).

To schedule a pre-application meeting, present questions, or if you need further assistance, please contact USACE at:

Email: cenae-r-ma@usace.army.mil (strongly preferred) Phone: (978) 318-8338

Mail: U.S. Army Corps of Engineers
New England District
Regulatory Division, Massachusetts Section
696 Virginia Road
Concord, MA 01742

2. Submitting a Request

Please follow the procedures outlined in Sections II.2-5 when requesting an SV or applying for PCN authorization for activities covered by these GPs. The GPs are provided in Section III below. For SV-eligible projects, the Self-Verification Notification (SVN) must be submitted within 30 days of commencing work. Otherwise, a Pre-Construction Notification (PCN) must be submitted for work that is not SV-eligible. Please include appropriate drawings and attachments and submit your request using the mailbox identified in Section II.4 or II.5 below. USACE will promptly confirm receipt of your request and notify you in the event additional information is required. Guidance on

how to submit electronic correspondence is located on the NAE Regulatory website here: https://www.nae.usace.army.mil/Missions/Regulatory/Submitting-Electronic-Correspondence.

3. Local, State & Federal Approvals

Applicants are responsible for applying for and obtaining any required local, state, and federal permits or approvals. These must be obtained prior to the commencement of work in waters. Such authorizations may include a Water Quality Certification, a Coastal Zone Management Act consistency determination, and other approvals as noted below. Authorization under these GPs does not obviate the need for the permittee to obtain other Federal, State, or local permits, approvals, or authorizations required by law.

I. Water Quality Certification under Section 401 of the Federal Clean Water Act (33 USC 1341).
Applicants are responsible for determining the appropriate 401 Water quality Certification (WQC) requirements and submitting this information to the USACE at the time of their PCN application or when completing their SVN. Applicants that are unsure of whether their activity has been certified should contact MassDEP, or EPA Region 1 when the activity is located on tribal lands, for a determination. The 401 WQC requirement must be satisfied by acquiring one of the following WQCs from MassDEP (see GC 8):

General 401 WQC: The MassDEP issued a WQC on April 21, 2023 conditionally certifies all activities in GPs 1 – 24 eligible for SV and PCN so long as the activity is described in 314 CMR 9.03, and is not an activity described in 314 CMR 9.04, and so long as the activity meets all other requirements, terms and conditions of this WQC. The MassDEP WQC also conditionally certifies activities described in GP 25 so long as the activity meets all other conditions of the WQC. Emergency projects described in GP 25 must obtain an emergency certification or otherwise be authorized pursuant to 310 CMR 10.06, qualify under a Severe Weather Emergency Declaration pursuant to 310 CMR 10.06(8) issued by the MassDEP, or meet the requirements of 9.12(2) or (3) in order to be certified under the WQC

Applicants should refer to the following link to determine if their activity is eligible: *https://www.nae.usace.army.mil/Missions/Regulatory/ State-General-Permits/ Massachusetts-General-Permit/*. If eligible, you must comply with all applicable WQC conditions. Activities listed in 314 CMR 9.03 that are not exempt from the Wetland Protection Act must have a valid Final Order of Conditions (OOC) or Final Restoration Order of Conditions pursuant to 310 CMR 10.00 to be eligible under the General 401 WQC.

Individual 401 WQC: In the event the proposed activity is not covered by the general WQC, applicants shall contact MassDEP and apply for an individual 401 WQC if their activity does not qualify for a General 401 WQC as outlined above. MassDEP may issue, waive, or deny the individual 401 WQC on a case-by-case basis. All activities listed in 314 CMR 9.04 must obtain an individual 401 WQC from MassDEP to be eligible under these GPs. When an Individual 401 WQC is required for *PCN activities*, the applicant shall submit their Individual 401 WQC application concurrently to MassDEP and the USACE to comply with 40 CFR 121.

Activities Proposed on Tribal Lands: When an activity is proposed on Tribal lands, the applicant shall refer to the general 401 WQCs granted by the Environmental Protection Agency (EPA), Region 1 on May 15, 2023. These 401 WQCs are located on the USACE Regulatory website: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/.

II. Coastal Zone Management Act Federal Consistency Concurrence pursuant to Section 307 of the CZMA of 1972, as amended. Federal consistency concurrence is required for all activities located within the coastal zone, unless determined otherwise by the Massachusetts Office of Coastal Zone Management (MA CZM) (see GC 9). As applicable, this requirement must be satisfied by acquiring one of the following from the MA CZM:

General CZM Federal Consistency Concurrence (General Concurrence): MA CZM has granted General Concurrence for all SV and PCN activities for GPs 1-25 and this can be found at: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/. The applicant must obtain all applicable permits and approvals prior to the commencement of work in USACE jurisdiction (i.e., construction begins on site). For SVs, General Concurrence is automatically granted and no further action is required from the applicant. For PCNs, the USACE will coordinate with MA CZM to acquire General Concurrence as part of the PCN application review. During review of the PCN application, USACE may request additional information from the applicant to support CZM's evaluation of the activity.

Individual CZM Federal Consistency Concurrence (Individual Concurrence): In certain cases, MA CZM may elevate any GP activity 1-25 to require Individual Concurrence. The applicant must contact MA CZM and follow the procedures to obtain Individual Concurrence as determined appropriate by MA CZM.

The MA CZM program includes five regional offices that serve 78 coastal municipalities. The following map provides more information about these offices: https://www.mass.gov/service-details/czm-regions-coastal-communities-and-coastal-zone-boundary

III. Other Approvals: Approvals typically required in Massachusetts include, but are not limited to, a Chapter 91 Permit/License, Massachusetts Environmental Protection Act (MEPA) review, Wetlands Protection Act Order of Conditions, and/or Aquaculture Certification. *Applicants should also be aware that USACE may not be able to render a permit decision in the event the proposed activity is denied by another local, state and/or federal agency.*

4. Procedures for Self-Verification (SV) Eligible Projects

If the activity is eligible for an SV, the Self-Verification Notification (SVN) must be completed prior to the start of project construction and submitted to USACE within 30 days of commencing work. The purpose of the SVN is to provide applicants with a tool to assist them when determining if the activity as proposed is SV-eligible. The following GPs do not require submission of the SVN: GP 1 (SV #1), GP 3 (SV #2-3), GP 4 (SV #2), GP 11, GP 12 (note #2), GP 14 (see note), GP 15 (see note), and GP 24 (SV #3). **For the activities not listed above, the SVN must be completed prior to the start of work and be kept on site at all times during project construction.** The applicant shall not begin work for SV-eligible activities until they have completely verified the bulleted items below.

Digital submittals by email are **strongly encouraged** to facilitate the most efficient processing of the SVN submittal. Please communicate with USACE staff if you are unable to provide a digital copy. Addresses are cenae-r-ma-sv@usace.army.mil (email) or Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751 (mail).

Eligible SV Activities:

- Are subject to USACE jurisdiction (see GC 2); and
- Qualify for one or more of the GPs within this document (Section III); and
- Meet the GCs within this document (Section IV); and

- When required, are supported by a complete SVN (Appendix C); and
- Receive all other required local, State, and/or Federal approvals.

5. Procedures for Pre-Construction Notification (PCN) Eligible Projects

For activities that require a PCN, an application to and written authorization from USACE is required. *No work requiring a PCN may proceed until the applicant receives written authorization from USACE verifying that the activity is authorized.* The verification letter may include special conditions that the applicant must comply with. When possible, it is *highly* recommended that PCN application materials are submitted at least 90 days before the target start date to allow for USACE evaluation and any necessary agency consultations. PCN applications shall demonstrate in writing how the proposed activity complies with all GCs, as applicable to their activity.

Digital submittals by email are **strongly encouraged** to facilitate the most efficient processing of the PCN application. Please communicate with USACE staff if you are unable to provide a digital copy. Addresses are cenae-r-ma@usace.army.mil or Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751 (mail).

Eligible PCN Activities:

- Are subject to USACE jurisdiction (see GC 2); and
- Qualify for one or more of the GPs within this document (Section III); and
- Meet the GCs within this document (Section IV); and
- Comply with the Mitigation Standards within this document (Section V); and
- Are supported by a complete PCN document (Appendix B); and
- When required, are supported by the submittal of project information to the appropriate parties identified in Appendix A; and
- Receive all other required local, State, and/or Federal approvals.

6. Interagency Review Procedures

The USACE reserves the opportunity to coordinate PCN activities with Federal and State agencies to ensure that the proposed activity results in no more than a minimal impact to the aquatic environment. In some cases, USACE may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal. The USACE determines, after review and coordination with the agencies and/or the applicant, if PCN applications:

a. Meet the terms and conditions of the GP as proposed;
b. Require additional information;
c. Require avoidance, minimization, compensatory mitigation, construction sequencing, project modification, or other special conditions to avoid or minimize adverse impacts to the aquatic environment;
d. Require individual permit review regardless of whether the terms and GCs of these GPs are met, based on concerns for the aquatic environment or any other factor of the public interest (see Section 9 below).

For activities requiring a PCN, the applicant must wait for written authorization from USACE before commencing activities in waters of the U.S. Beginning work for PCN required activities without a USACE written authorization is a violation of these GPs, and the terms and conditions of this document. The applicant may be subjected to an enforcement action by USACE and/or the Environmental Protection Agency (EPA).

7. Construction of Solid Fill Structures and Fills Along the Coastline or Baseline from Which the Territorial Sea is Measured.

Projects involving the construction of solid fill structures or discharge of fill that may extend beyond the coastline or the baseline from which the territorial sea is measured (i.e., mean low water) will require a PCN. The USACE will submit a description of the proposed work and a copy of the plans to the Solicitor, Department of the Interior, Washington, DC 20240, and request comments concerning the effects of the proposed work on the outer continental rights of the United States. These comments will be included in the administrative record of the application. After completion of permit review, the record will be forwarded to the Chief of Engineers. The decision on the application will be made by the Secretary of the Army after coordination with the Attorney General.

8. Emergency Activities

Per 33 CFR 325.2(e)(4), an emergency is limited to a situation that would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process an application under standard procedures. Emergency work shall be limited to that which is necessary to stabilize and secure the situation. Additional work needed for final repairs shall not be completed until approval is obtained through the appropriate, non-emergency process. Emergency work is subject to the same terms and conditions of these GPs as non-emergency work, and similarly, must qualify for authorization under these GPs; otherwise, an IP is required. *See GP 25 Emergency Situations for additional information.*

9. Individual Permit

Projects that do not meet the terms and conditions of this GP may require review as an IP (33 CFR 325.5 (b)). Proposed work in this category will require a separate Federal application for an individual permit from USACE (33 CFR 325.1). In addition, USACE retains discretionary authority on a case-by-case basis to elevate GP-eligible activities to an IP based on concerns for the environment or any other factor of the public interest (33 CFR 320.4 (a)). Applicants are required to submit the appropriate application materials directly to USACE as early as possible to expedite the permit review process. General information and application forms can be obtained at our website or by contacting our office at cenae-r-ma@usace.army.mil or (978) 318-8338. Individual 401 WQC and/or CZMA Federal consistency concurrence from the appropriate MA agencies are required before USACE can issue an individual permit. Applying for an IP does not relieve the applicant from their obligation to obtain all required Federal, State and/or local approvals.

10. Compliance

Applicants shall ensure compliance with all applicable GPs in Section III, GCs in Section IV, and any special conditions included in USACE verification letters. Noncompliance with these GPs, GCs, and special conditions may subject the applicant to criminal, civil, or administrative penalties, and/or an ordered restoration, and/or the permit may be modified, suspended or revoked by USACE. The USACE will consider any activity requiring USACE authorization to be noncompliant if that activity does not comply with all GP terms and conditions at all times, including while the project is under construction and when work is completed.

SECTION III. MASSACHUSETTS GENERAL PERMITS

Applicants are encouraged to review Sections I & II prior to submitting an application to confirm that the activity as proposed complies with all terms and conditions of the 2023 MA GPs. Applicants are also encouraged to review the definitions in Section VII, Definitions & Acronyms, of this document. Several terms are frequently used throughout the GPs, and it is important for the reader to understand these terms. If seeking verification for an activity previously verified under the 2018 MA GPs, please contact the USACE to discuss permitting needs in advance of submitting an application.

General Permits

1. Aids to Navigation and Temporary Recreational Structures
2. Maintenance
3. Moorings
4. Structures in Navigable Waters of the U.S.
5. Boat Ramps and Marine Railways
6. Utility Lines, Oil or Natural Gas Pipelines, Outfall Or Intake Structures, and Appurtenant Features
7. Dredging, Disposal of Dredged Material, Beach Nourishment, Rock Removal and Rock Relocation
8. U.S. Coast Guard Approved Bridges
9. Bank and Shoreline Stabilization
10. Aquatic Habitat Restoration, Enhancement, and Establishment Activities
11. Fish and Wildlife Harvesting and Attraction Devices and Activities
12. Response Operations, Oil and Hazardous Substances
13. Cleanup of Hazardous and Toxic Waste
14. Scientific Measurement Devices
15. Survey Activities
16. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects
17. Residential, Commercial and Institutional Developments, and Recreational Facilities
18. Aquaculture
19. Mining Activities
20. Living Shorelines
21. Agricultural Activities
22. Reshaping Existing Drainage Ditches, Construction of New Ditches, and Mosquito Management
23. Linear Transportation Projects and Wetland/Stream Crossings
24. Temporary Construction, Access, and Dewatering
25. Emergency Situations

GP 1. AIDS TO NAVIGATION AND TEMPORARY RECREATIONAL STRUCTURES (Authority: §10)	
(a) The placement of aids to navigation and regulatory markers that are approved by and installed in accordance with the requirements of the U.S. Coast Guard (USCG). See 33 CFR, Part 66; and (b) Temporary buoys, markers, and similar structures placed for recreational use during specific events such as water skiing competitions and boat races or seasonal use. See GC 16.	
Self-Verification Eligible	**Pre-Construction Notification Required**
1. Aids to navigation and regulatory markers approved by and installed in accordance with the requirements of the USCG. 2. Temporary buoys, markers and similar structures that are: (a) placed for recreational use during specific events and removed within 30 days after event; or (b) placed during winter events on ice and removed before spring thaw. These structures must be authorized by the local harbormaster, not located within an FNP or its buffer zone, and not located in saltmarsh or tidal vegetated shallows.	1. Impacts in saltmarsh or tidal vegetated shallows. 2. Activities that are not SV eligible.
Note: An SVN submittal to USACE is not required for work authorized under SV #1 above.	

GP 2. MAINTENANCE (Authorities: §10 and §404)

Repair, rehabilitation, or replacement of any previously authorized[1], currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3 (activities occurring before certain dates), provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction technique requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This GP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the activities above. Maintenance dredging and beach nourishment are not eligible under GP 2 (see GP 7). Stream crossing modifications (including sliplining), replacements or extensions are not eligible under GP 2 (see GPs 6, 17, 23). *See GP 25 Emergency Situations for expedited review of emergency activities.*

Not authorized under GP 2 (IP required): (a) Permanent impacts in >1 acre in non-tidal waters and/or wetlands; or (b) Permanent impacts >1/2 acre in tidal waters; >1000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >100 SF in tidal vegetated shallows; or (c) Temporary impacts >1 acre in tidal waters; >5000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >1000 SF in vegetated shallows; (d) New stream channelization or stream relocation projects (e.g., those in response to storm or flood events).

Self-Verification Eligible

Maintenance activities that meet all of the following terms:

1. In non-tidal waters, the combined permanent and temporary impacts extending beyond the original footprint are ≤5,000 SF[2] and not located in vegetated shallows or riffle and pool complexes.

2. In tidal waters, the combined permanent and temporary impacts extending beyond the original footprint are ≤5,000 SF, ≤1,000 SF in mudflats and/or natural rocky habitat, and not located in saltmarsh and tidal vegetated shallows.

3. Minor deviations in the repair, rehabilitation, or replacement of previously authorized, currently serviceable structures or fills.

4. Bulkhead replacement in tidal and non-tidal waters via installation of new bulkhead within 18 inches of the existing bulkhead and associated backfill.

5. Drawdown of an impoundment for dam/levee repair provided it does not exceed 18 months and one growing season (April through September).

Pre-Construction Notification Required

1. Discharges associated with removal of accumulated sediments and debris in the vicinity of existing structures, including intake and outfall structures and associated canals.

2. The removal of sediment outside the immediate vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) that is ≥200 linear feet. This activity is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions existing when the structure was built.

3. Dam and flood control or levee repair, rehabilitation, or replacement involves:
   a. A change in the flood elevation or permanent water surface elevation of the impoundment; or
   b. Drawdown of impoundment for construction exceeding one growing season (see SV eligible #5);
   c. Any modification that changes the character, scope, or size of the original fill design; or
   d. Does not meet SV eligible 1-7.

4. Installation of steel piles, including steel sheet piles, that cannot be done in the dry and where NOAA-ESA listed species are mapped as present.

[1] Some maintenance activities may not be subject to regulation under Section 404 of the CWA in accordance with 33 CFR 323.4(a)(2). Per 33 CFR 330.3, Vested dates are: a) Work performed and structures installed before December 18, 1968 (Section 10); and b) Fill placed before July 25, 1975 (Section 404).
[2] This excludes dam projects that may require a temporary drawdown with impacts >5,000 SF in non-tidal waters. Instead, the drawdown shall comply with SV #5 to be eligible under Self-Verification.

6. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project or within the boundaries of the structure or fill. 7. Work to previously approved tide gates not affecting upstream tidal resource areas.	5. Activities located in the Connecticut River or Merrimack River, unless they are completed in the dry or when the tide is waterward of the work area. 6. Activities on USACE properties & USACE-controlled easements. 7. Activities that do not require an IP. Activities that do not require a PCN or an IP may be SV eligible.
Notes: 1. This authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the CWA §404(f) exemption for maintenance. See 33 CFR 323.4(a)(2). Prior USACE permits may have included authorization to maintain the activity, in which case authorization under this GP is not necessary. 2. See GC 22 for information on temporary construction mats.	

GP 3. MOORINGS (Authority: §10)

New moorings and mooring fields; the relocation of previously authorized moorings; expansions, boundary reconfigurations or modifications of previously authorized mooring fields; and maintenance and replacement of moorings.

Not authorized under GP 3 (IP required): (a) Moorings or mooring fields converted to or associated with a new boating facility[1]; or (b) Moorings in a USACE Federal Navigation Anchorage or USACE Federal Navigation Channel, except municipal-operated mooring fields.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. New or relocated moorings that meet all the following terms: a. Authorized by a local harbormaster/ municipality under MGL Chapter 91 §10A; and b. No interference with navigation; and c. Single boat, single-point and non-commercial; and d. Not associated with a boating facility, and e. Neither placed within nor impact tidal vegetated shallows (e.g., eelgrass); and f. Not located within a USACE Federal navigation project (FNP) or the FNP buffer zone. 2. Existing, authorized moorings are converted from traditional moorings to low impact mooring technology (see note below) and/or helical anchors. 3. Maintenance and replacement of moorings authorized by the USACE.	1. New mooring fields; or expansions, boundary reconfigurations or modifications of existing, authorized mooring fields. 2. Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits of a Federal Anchorage. The buffer zone is equal to 3 times the authorized depth of that channel (see GC 15). 3. New individual moorings located in saltmarsh, mudflats, natural rocky habitat, and tidal vegetated shallows. Locating moorings these areas should be avoided to the maximum extent practicable. If these areas cannot be avoided, plans should show conservation mooring or low-impact mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides, where practicable. USACE may require a survey in areas previously mapped as containing eelgrass or within 100 ft. of existing eelgrass beds to document presence or absence of eelgrass and to determine the appropriate type and amount of compensatory mitigation for impacts to eelgrass. 4. Replacement moorings located in tidal vegetated shallows. 5. Moorings that are not SV eligible and do not require an IP.

Notes:

1. Low impact mooring systems, including conservation moorings, are encouraged to minimize impacts of chain scouring from conventional moorings during the tidal cycle.
2. An SVN submittal to USACE is not required for work authorized under SV #2-3 above.

[1] Boating facilities are marinas, yacht clubs, boat clubs, boat yards, dockominiums, town facilities, land/homeowner's associations, etc. that provide for a fee, rent or sell mooring or docking space. Not classified as boating facilities are municipal moorings or municipal mooring fields that charge an equitable user fee based only on the actual costs incurred.

GP 4. STRUCTURES IN NAVIGABLE WATERS OF THE U.S. (Authority: §10 & §404)

New, expansions, reconfigurations or modifications of structures for navigational access in waters of the U.S. including but not limited to temporary/seasonal or permanent pile and pole-supported piers, floats, stairs, shore outhauls, and boat and float lifts.

Not authorized under GP 4 (IP required): (a) Structures associated with a new boating facility; (b) Structures in a USACE Federal anchorage or channel; or (c) Artificial reefs.

Self-Verification Eligible

1. Private, non-commercial piers, floats and lifts that meet all the following terms:

a. Piers and floats in: (i) Tidal waters total ≤600 SF combined; and (ii) Non-tidal navigable waters of the U.S. total ≤600 SF combined; and

b. Piers are ≤4 feet wide and ≥6 feet above the marsh substrate (the height is measured from the marsh substrate to the bottom of the lowest longitudinal support); and

c. Floats and lifts in tidal waters and non-tidal navigable waters of the U.S. are ≥24 inches above the substrate during all tidal cycles. Float stops are preferred when site conditions warrant them (i.e., low tide exposes substrate), and skids can only be used in areas where piles are not feasible and on sandy or hard bottom substrates; and

d. Piers, floats and lifts: (i) Are ≥25 feet from previously mapped or existing vegetated shallows, or riparian property line extensions; (ii) Extend ≤25% of the waterway width in non-tidal navigable waters of the U.S. or MHW in tidal navigable waters of the U.S.

e. Installation of ≤12-inch diameter timber piles. Installation of ≥12-inch diameter piles of any material type when installed in the dry.

2. Fenders and similar structures.

Pre-Construction Notification Required

1. Shore outhauls.
2. Expansions, modifications, or new reconfiguration zones at any authorized boating facility.
3. New, expansions, reconfigurations, reconfiguration zones, or modifications of structures that provide public, community or government recreational uses such as boating, fishing, swimming, access, etc.
4. Installation of steel piles, including steel sheet piles, that cannot be done in the dry and where NOAA-ESA listed species are mapped as present.
5. Located within the buffer zone of the horizontal limits of an FNP (GC 15).
6. Miscellaneous structures.
7. Impacts in tidal vegetated shallows.
8. Structures that are not SV eligible and do not require an IP.

Notes:

1. See GC 19 regarding pile driving and pile removal in navigable waters and
2. See GC 20 regarding time of year restrictions in tidal waters.
3. Boating facilities are facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc. Pile supported structures with no discharges of dredged or fill material are not regulated by USACE in non-navigable waters.
4. A SVN submittal to USACE is not required for SV #2 above.

GP 5. BOAT RAMPS AND MARINE RAILWAYS (Authorities: §10 and §404)

Activities required for the construction of boat ramps and marine railways, including excavation and fill.

Not authorized under GP 5 (IP required): (a) Permanent impacts that are >1 acre in non-tidal waters of the U.S., >½ acre in tidal waters; >1000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >100 SF in tidal vegetated shallows; (b) Temporary impacts in tidal waters that are >1 acre; >5000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1000 SF in vegetated shallows[1]; or (c) dredging in navigable waters of the U.S. (see GP 7).

Self-Verification Eligible	Pre-Construction Notification Required
1. In non-tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, and (b) not located in riffle and pool complexes and non-tidal vegetated shallows.	1. Boat ramps are located within 25 feet of property line extensions unless the properties are owned by the same owner. The USACE may require a letter of no objection from the abutter(s).
2. In tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, (b) ≤1,000 SF in mudflats and/or natural rocky habitat, and (c), not located in saltmarsh and tidal vegetated shallows.	2. Activities that are not eligible for SV and do not require an IP.

GP 6. UTILITY LINES, OIL OR NATURAL GAS PIPELINES, OUTFALL OR INTAKE STRUCTURES, AND APPURTENANT FEATURES (Authorities: §10 & §404)

Activities required for: (a) The construction, maintenance, repair or removal of utility lines, oil or natural gas pipelines[1], outfall or intake structures[2], and appurtenant features including the associated excavation, backfill, or bedding for these structures. (b) The construction, maintenance, or expansion of substations and other appurtenant facilities associated with a utility line, oil or natural gas pipeline, and outfall or intake structure in non-tidal waters of the U.S.; and (c) The construction and maintenance of foundations for overhead utility line towers, poles, and anchors in tidal and non-tidal waters of the U.S., provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible. This GP authorizes the construction of access roads to facilitate construction of the above activities provided the activity, in combination with all other activities included in one single and complete project, does not exceed the thresholds identified below (IP required). Access roads used solely for construction of the utility line must be removed upon completion of the work. This GP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the activities above.[3]

Not authorized under GP 6 (IP required): (a) Permanent impacts for any single and complete project that are >1 acre in non-tidal waters of the U.S.; >½ acre in tidal waters; >1000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >100 SF in tidal vegetated shallows; (b) Temporary impacts in tidal waters that are >1 acre; >5000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1000 SF in vegetated shallows; (c) Stormwater treatment or detention systems, or subsurface sewage disposal systems in waters of the U.S.; or (d) New tide gates that do not meet SV criteria below.

Self-Verification Eligible	Pre-Construction Notification Required
1. In non-tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, and (b) not located in riffle and pool complexes and non-tidal vegetated shallows. 2. In tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, (b) ≤1,000 SF in mudflats and/or natural rocky habitat, and (c), not located in saltmarsh and tidal vegetated shallows. 3. Intake structures that are dry hydrants used exclusively for firefighting activities with no stream impoundments. 4. New tide gates on outfall structures for pipes conveying stormwater and/or industrial NPDES-permitted discharges from waters that are not waters of the U.S.	1. New outfall and/or intake structures. 2. Unconfined work or silt producing activities in streams with diadromous fish. 3. Submarine cables, conduits, or pipelines that occur in, over or under navigable waters of the U.S. 4. Stream channelization, relocation, impoundment, or loss of streambed occurs. 5. The activity is placed within and runs parallel to or along a streambed within waters of the U.S. 6. There is a permanent change in preconstruction contours in waters of the U.S. 7. Installation of utility lines or gas/oil pipelines using trench excavation where material is temporarily sidecast into waters of the U.S. for >3 months. Applicants must demonstrate how the material would not be dispersed by currents or other forces. 8. Activities that are not SV eligible and do not require an IP.

[1] See the definitions of a “utility line” and “oil or natural gas pipeline” in Section VII.
[2] Outfall structures must be in compliance with regulations issued under the National Pollutant Discharge Elimination System Program (Section 402 of the Clean Water Act).
[3] Temporary impacts shall comply with all GCs, including GC 32 Utility Line Installation and Removal.

GP 7. DREDGING (Authority: §10), DISPOSAL OF DREDGED MATERIAL (Authorities: §10, §404), BEACH NOURISHMENT (Authorities: §10 & §404), ROCK REMOVAL (Authority: §10) AND ROCK RELOCATION (Authorities: §10 & §404)

New, improvement and maintenance dredging (see notes below) including: (a) Disposal of dredged material at a confined aquatic disposal cell, beach nourishment location, near shore site, or ocean disposal site selected under Section 404 of the Clean Water Act pursuant to the 404(b)(1) Guidelines, provided the dredged material meets the requirements for such disposal; (b) Beach nourishment not associated with dredging; and (c) Rock removal and relocation for navigation.

Not authorized under GP 7 (IP required): (a) Dredging where ocean disposal is required for the disposal of dredged material (Section 103); New dredging >½ acre; ≥10,000 CY; >1000 SF permanent impacts to intertidal areas, saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >100 SF permanent impacts to tidal vegetated shallows; (b) Maintenance or improvement dredging and/or disposal with >1 acre of impacts to intertidal areas, saltmarsh, mudflats, riffle and pool complexes, or non-tidal vegetated shallows; (c) New dredging where the primary purpose is sand mining for beach nourishment; (d) Beach scraping; (e) Boulder removal and relocation for navigation >½ acre; or (f) Blasting.

Self-Verification Eligible

1. Maintenance dredging of previously dredged areas, with upland disposal, that meet all of the following terms:
   a. Dredged area ≤1/2 acre; and
   b. Activities comply with GC 20, TOY Restrictions. The time-of-year restriction(s) stated in Appendix B of the MA Division of Marine Fisheries (DMF) Technical Report TR-47[1] can apply instead if the general TOY restriction if a TOY is provided for a specific waterbody and is less restrictive. This is to protect endangered species, EFH, and other species; and
   c. The dredge footprint is located >25' from salt marsh or >100' from vegetated shallows; and
   d. Combined permanent and temporary impacts that are (i) ≤1,000 SF in mudflats or natural rocky habitat, or (ii) ≤5,000 SF within intertidal habitat and areas containing shellfish (an area contains shellfish unless: it is verified that minimal shellfish are present per the local shellfish constable or a shellfish survey; or it is not mapped as a MassGIS shellfish suitability area).
   e. No return water from upland disposal areas.

2. Boulder relocation with ≤1,000 SF of impacts, relocated to a similar depth and substrate.

Pre-Construction Notification Required

1. Maintenance dredging where the primary purpose is sand mining for beach nourishment.

2. New dredging and associated disposal ≤1/2 acre or <10,000 cubic yards.

3. Improvement dredging.

4. Beach nourishment in waters of the U.S. not associated with dredging.

5. Activities that are located in saltmarsh and tidal vegetated shallows.

6. Dredging in a Federal Navigation Project or within the buffer zone (see GC 15).

7. Activities that are not eligible for SV and do not require an IP.

Notes:

1. See Section VII for definitions of improvement and maintenance dredging.
2. For PCN activities, the USACE may waive or adjust the time of year requirement on a case-by-case basis after consultation with resource agencies.
3. Disposal site of any dredged material must be identified prior to obtaining USACE authorization.
4. Contact the USACE if a ten-year authorization to maintain an area is desired.

[1] The MA DMF Technical Report TR-47: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/

GP 8. U.S. COAST GUARD APPROVED BRIDGES (Authorities: §404)

Discharges of dredged or fill material incidental to the construction and modification of bridges across navigable waters of the U.S., including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided that the USCG authorizes the construction of the bridge structure under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws. A USCG Authorization Act Exemption or a Surface Transportation and Uniform Relocation Assistance Act (STURRA) (144h) exemption do not constitute USCG authorization.

Not authorized under GP 8 (IP Required): Causeways and approach fills (see GP 23).

Self-Verification Eligible	Pre-Construction Notification Required
1. Discharges of dredged or fill material that are incidental to the construction of bridges across navigable waters and meet all of the following: a. Combined permanent and temporary impacts that are ≤5,000 SF. b. Combined permanent and temporary impacts that are ≤1,000 SF in mudflats and natural rocky habitat. c. Not located in saltmarsh and tidal vegetated shallows.	1. Activities on USACE properties & USACE controlled easements.2. Installation of steel piles, including steel sheet piles, that cannot be done in the dry and where NOAA-ESA listed species are mapped as present. 3. Activities that are not eligible for SV and do not require an IP.

Notes:

1. GP 8 is not applicable to bridges over inland waters or wetlands that are not tidally influenced or regulated as navigable under Section 10.
2. See eligibility criteria for GPs 2 & 23 for projects that are not subject to USCG regulations.

GP 9. BANK AND SHORELINE STABILIZATION (Authorities: §10 & §404)

Bank stabilization activities necessary for erosion protection along the banks of lakes, ponds, streams, estuarine and ocean waters, and any other open waters. Includes bulkheads, seawalls, riprap, revetments, living seawalls, or slope protection & similar structures, specifically for the purpose of shoreline protection. This GP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the activities above.

Activities must meet the following criteria: (a) No material is placed in excess of the minimum needed for erosion protection; (b) No material is of a type, or is placed in any location, or in any manner, that will impair surface water flow into or out of any waters of the U.S.; (c) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored native trees and treetops may be used in low energy areas); (d) Native plants appropriate for current site conditions, including salinity, must be used for bioengineering or vegetative bank stabilization; (e) The activity is not a stream channelization activity; and (f) The activity must be properly maintained, which may require repairing it after severe storms or erosion events. This GP authorizes those maintenance and repair activities if they require authorization. This GP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the bank stabilization activity. See GP 20 for living shoreline stabilization structures or fills.

Not authorized under GP 9 (IP required): (a) New bank stabilization >500 feet in total length (>1,000 linear feet in total length when necessary to protect transportation infrastructure) or permanent loss of saltmarsh >1,000 SF, unless the District Engineer waives this criterion by making a written determination concluding that the discharge of dredged or fill material will result in no more than minimal adverse environmental effects (an exception is for bulkheads – the district engineer cannot issue a waiver for a new bulkhead that is >1,000 feet in length along the bank); (b) Stream channelization or relocation activities; or (c) Breakwaters, groins or jetties.

Self-Verification Eligible

1. Activities in tidal and non-tidal waters that are:
   a. <200 feet in length.
   b. <400 feet in length when necessary to protect transportation infrastructure.
   c. ≤1 cubic yard of fill per linear foot average along the bank waterward of the plane of OHW or HTL.
   d. Not located in non-tidal wetlands, saltmarsh, vegetated shallows.

Pre-Construction Notification Required

1. Activities in tidal and non-tidal waters that are:
   a. ≥200 feet to ≤500 feet in total length. Activities >500 feet in total length must have a written waiver from USACE.
   b. ≥400 feet to ≤1,000 feet in total length when necessary to protect transportation infrastructure. Activities >1,000 feet in total length must have a written waiver from USACE.
   c. >1 cubic yard of fill per linear foot average along the bank waterward of the plane of OHW or HTL.
   d. Located in non-tidal wetlands, saltmarsh, vegetated shallows.
2. Activities with permanent loss of tidal or non-tidal waters that is (a) ≥5,000 SF or (b) ≥1,000 SF in mudflats and natural rocky habitat.
3. Activities that are (a) located in the Connecticut River or Merrimack River and/or (b) require installation of steel piles/steel sheet piles that cannot be done in the dry where NOAA ESA-listed species are mapped as present.
4. Activities on USACE properties & USACE-controlled easements.
5. Activities that require grouted riprap and/or poured/unformed concrete.
6. Activities that are not eligible for SV and do not require an IP.

Note: The applicant shall comply with GC 24. This includes utilization of bioengineering techniques in lieu of hard armoring to the maximum extent practicable as site conditions allow.

GP 10. AQUATIC HABITAT RESTORATION, ENHANCEMENT, AND ESTABLISHMENT ACTIVITIES (Authorities: §10 and §404)

Activities for the restoration, enhancement and establishment of non-tidal and tidal wetlands and riparian areas, including invasive, non-native or nuisance species control; the restoration and enhancement of non-tidal streams and other non-tidal open waters; the relocation of non-tidal waters, including non-tidal streams & associated wetlands for reestablishment of a natural stream morphology and reconnection of the floodplain; the restoration and enhancement of shellfish, finfish and wildlife; and the rehabilitation or enhancement of tidal streams, tidal wetlands and tidal open waters; provided those activities result in net increases in aquatic resource functions and services. See GP 9 for bank and shoreline stabilization. See GP 20 for living shorelines.

Not authorized under GP 10 (IP required): Stream channelization activities and artificial reefs.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. In tidal and non-tidal waters excluding tidal vegetated shallows, the combined permanent and temporary impacts are ≤5,000 SF. 2. Eelgrass (vegetated shallows) planting and transplanting ≤100 SF in tidal waters.	1. In tidal and non-tidal waters excluding tidal vegetated shallows, the combined permanent and temporary impacts are >5,000 SF. 2. Eelgrass (vegetated shallows) planting and transplanting >100 SF in tidal waters. 3. Permanent water impoundments, dam removal, fish ladders, or tide gates. 4. Stream relocation, impoundment, or loss of streambed occurs. 5. Runneling projects with the purpose of restoring saltmarsh by removing excess water that ponds on the saltmarsh surface. 6. The conversion of: (a) a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa, wetland to pond, etc.) or uplands, (b) one wetland type to another (e.g., forested wetland to an emergent wetland). 7. Activities in the Connecticut River from the Turners Falls Dam to the MA/CT border, or Merrimack River from the Essex Dam to the mouth, involving permanent or temporary impacts unless they are performed <5 feet waterward from OHW or HTL and in the dry. This is to protect endangered species. 8. Activities on USACE properties & USACE-controlled easements. 9. Activities that are not eligible for SV and do not require an IP.

Notes:

1. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type.
2. See RGL 18-01 for guidance on removal of obsolete dams and other structures from rivers and streams. https://www.usace.army.mil/missions/civil-works/regulatory-program-and-permits/guidance-letters/
3. An ecological reference site may be used for a design basis of the restoration activity. The reference site should possess characteristics of an intact aquatic habitat or riparian area that exists in the region. The reference site shall represent the target habitat type of the proposed activity. A reference site may be required at the discretion of USACE.

GP 11. FISH AND WILDLIFE HARVESTING AND ATTRACTION DEVICES AND ACTIVITIES (Authorities: §10 and §404)

Fish and wildlife harvesting and attraction devices and activities in waters of the U.S. such as pound nets, crab traps, crab and shellfish dredging, eel pots, lobster traps, duck blinds, clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open-water fish concentrators (sea kites, etc.).

Not authorized under GP 11 (IP required): Artificial reefs; or new, or expansions of, impoundments and semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster with an impounded area >½ acre.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. In non-tidal waters, the combined permanent and temporary impacts are (a) ≤1/2 acre, and (b) not located in riffle and pool complexes and non-tidal vegetated shallows. 2. Fish and wildlife harvesting and attraction devices and activities that do not require a PCN or IP.	1. Pound nets, impoundments or semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster with an impounded area ≤½ acre, fish aggregating devices, or small fish attraction devices. 2. Devices and activities that are located in tidal vegetated shallows, mud flats, or saltmarsh. 3. Devices and activities that do not require an IP.

Note: An SVN submittal to USACE is not required for work authorized under GP 11.

GP 12. RESPONSE OPERATIONS, OIL AND HAZARDOUS SUBSTANCES (Authorities: §10 & §404)

(a) Activities conducted in response to a discharge or release of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) including containment, cleanup, and mitigation efforts, provided that the activities are done under either: (i) The Spill Prevention, Control and Countermeasure Plan required by 40 CFR 112.3; (ii) The direction or oversight of the Federal on-scene coordinator designated by 40 CFR 300; or (iii) Any approved existing State, regional or local contingency plan provided that the Regional Response Team concurs with the proposed response efforts or does not object to the response effort; (b) Activities required for the cleanup of oil releases in waters of the U.S. from electrical equipment that are governed by EPA's polychlorinated biphenyl (PCB) spill response regulations at 40 CFR 761; (c) Booms placed in navigable waters of the U.S. for oil and hazardous substance containment, absorption and prevention; and (d) The use of structures and fills for spill response training exercises. Wetlands, vegetated shallows, mudflats, and riffle and pool complexes should be restored in place at the same elevation.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. Activities are conducted in accordance with (a) or (b) above that are not planned or scheduled, but an emergency response (see Note 1). 2. Booms placed in navigable waters of the U.S. for oil and hazardous substance containment, absorption and prevention. 3. Temporary impacts for spill response training exercises ≤5000 SF in non-tidal waters and ≤1000 SF in tidal waters with no impacts to wetlands, saltmarsh, mudflats, or vegetated shallows. 4. Temporary structures in tidal waters with no impacts to wetlands, saltmarsh, mudflats, vegetated shallows, or riffle and pool complexes and in place ≤30 days.	1. Activities (a) or (b) above are planned or scheduled, not an emergency response; or 2. Activities that are not eligible for SV and do not require an IP.

Notes:

1. For emergency response activities in the Connecticut River from the Turners Falls Dam to the MA/CT border, Merrimack River from the Essex Dam to the mouth, and remaining tidal waters that are not rivers, the permittee must contact the USACE at (978) 318-8338 before or as soon as possible after the work authorized under GP 12(a) - (c) commences for the USACE to address effects under the Endangered Species Act.
2. An SVN submittal to USACE is not required for booms used for spill prevention, or properly contained and cleaned de minimus oil or hazardous substance discharges into navigable waters of the U.S.

GP 13. CLEANUP OF HAZARDOUS AND TOXIC WASTE (Authorities: §10 and §404)

Specific activities required to affect the containment, stabilization, or removal of hazardous or toxic waste materials, including court ordered remedial action plans or related settlements, which are performed, ordered or sponsored by a government agency with established legal or regulatory authority.

Not authorized under GP 13: (a) Establishment of new disposal sites; or (b) Expansion of existing sites used for the disposal of hazardous or toxic waste.

Self-Verification Eligible	Pre-Construction Notification Required
1. In non-tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, and (b) not located in vegetated shallows and riffle and pool complexes.	1. In non-tidal waters, the combined permanent and temporary impacts are (a) >5,000 SF, and (b) located in vegetated shallows and riffle and pool complexes. 2. Permanent and temporary impacts in tidal waters or navigable waters of the U.S. 3. Stream channelization, relocation, impoundment, or loss of streambed occurs. 4. Activities that are not eligible for SV and do not require an IP.

Notes:

1. Wetlands, vegetated shallows, mudflats, and riffle and pool complexes should be restored in place at the same elevation to the maximum extent practicable.
2. Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA, are not required to obtain permits under Section 404 of the CWA or Section 10 of the Rivers and Harbors Act.

GP 14. SCIENTIFIC MEASUREMENT DEVICES (Authorities: §10 and §404)

Scientific measurement devices for measuring and recording scientific data, such as staff gauges, tide and current gauges, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures. Also eligible are small weirs and flumes constructed primarily to record water elevation, flow and/or velocity. Upon completion of the use of the device to measure and record scientific data, the measuring device and any other structures or fills associated with that device (e.g., foundations, anchors, buoys, lines, etc.) must be removed to the maximum extent practicable and the site restored to preconstruction elevations.

Not authorized under GP 14 (IP required): (a) Permanent impacts that are >5,000 SF in tidal and non-tidal waters of the U.S.; >1000 SF in tidal saltmarsh, mud flats, riffle and pool complexes; or >100 SF in tidal vegetated shallows; or (b) Temporary impacts in tidal waters that are >1 acre, unless the District Engineer waives this criterion by making a written determination concluding that the discharge of dredged or fill material will result in no more than minimal adverse environmental effects; >5000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1000 SF in vegetated shallows.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. In non-tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, (b) not located in riffle and pool complexes and non-tidal vegetated shallows. 2. In tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, (b) ≤1,000 SF in mudflats and/or natural rocky habitat, (c) not located in saltmarsh and tidal vegetated shallows. 3. Temporary, non-biological sampling devices in waters that do not restrict or concentrate movement of aquatic organisms and will not adversely affect the course, condition, or capacity of a waterway for navigation. 4. Scientific measurement devices, and small weirs and flumes constructed primarily to record water quantity and velocity provided the discharge of fill is limited to 25 cubic yards. These cannot obstruct or restrict the waterway course, condition, capacity, and location. 5. Temporary measuring devices and associated structures (e.g., anchors, buoys, etc.) in tidal and non-tidal waters that do not require a PCN or IP.	1. Biological sampling devices, weirs or flumes, or the activity restricts or concentrates movement of aquatic organisms. 2. Permanent towers located in navigable waters that record and measure scientific data. 3. Devices that are not eligible for SV and do not require an IP.

Note: An SVN submittal to USACE is not required for temporary measuring devices with a footprint of <10 SF, with a profile of <3 feet high measured from the substrate and located in water deeper than -10 feet MLW.

GP 15. SURVEY ACTIVITIES (Authorities: §10 and §404)

Survey activities such as soil borings, core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching, soil surveys, sampling, sample plots or transects for wetland delineations, and historic resources surveys.

Not authorized under GP 15 (IP required): (a) Permanent impacts that are >1 acre in tidal and non-tidal waters; >1000 SF in tidal saltmarsh, mud flats, or riffle and pool complexes; or >100 SF in tidal vegetated shallows; or (b) Temporary impacts in tidal waters that are >1 acre, unless the District Engineer waives this criterion by making a written determination concluding that the discharge of dredged or fill material will result in no more than minimal adverse environmental effects; >5000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1000 SF in vegetated shallows.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. In non-tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, (b) not located in riffle and pool complexes and non-tidal vegetated shallows. 2. In tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, (b) ≤1,000 SF in mudflats and/or natural rocky habitat, (c) not located in saltmarsh and tidal vegetated shallows.	1. Exploratory trenching (see Note 2) occurs in waterways (e.g., streams, tidal waters). 2. Activities associated with the recovery of historic resources, and the drilling and discharge of excavated material from test wells for oil and gas exploration. 3. Seismic exploratory operations occur in tidal waters, the Connecticut River from the Turners Falls Dam to the MA/CT border, or the Merrimack River from the Essex Dam to the mouth. This is to protect endangered species. 4. Activities that are not eligible for SV and do not require an IP.

Notes:

1. An SVN submittal is not required for wetland delineations, and core sampling conducted for preliminary evaluation of dredge project analysis.
2. For the purposes of GP 15, the term “exploratory trenching” means mechanical land or underwater clearing of the upper soil profile to expose bedrock or substrate for the purpose of mapping or sampling the exposed material.
3. The discharge of drilling mud and cuttings may require a permit under §402 of the CWA.

GP 16. LAND AND WATER-BASED RENEWABLE ENERGY GENERATION FACILITIES (Authorities: §10 and §404), AND HYDROPOWER PROJECTS (Authority: §10 and §404)

Structures and work in tidal waters and discharges of dredged or fill material into tidal and non-tidal waters for the construction, expansion, modification or removal of: (a) Land-based renewable energy production facilities (e.g., solar, wind, biomass, geothermal) and their attendant features; (b) Water-based wind or hydrokinetic renewable energy generation projects and their attendant features; and (c) Discharges of dredged or fill material associated with hydropower projects. Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, and parking lots. For each single and complete project in (b) above, no more than 10 generation units (e.g., wind turbines or hydrokinetic devices) are authorized in navigable waters of the U.S. Upon completion of the pilot project (see note 2), the generation units, transmission lines, and other structures or fills associated with the pilot project must be removed to the maximum extent practicable.

Not authorized under GP 16 (IP required): (a) Permanent impacts that are >1 acre in non-tidal waters, >½ acre in tidal waters; >1000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >100 SF in vegetated shallows; or (b) Temporary impacts in tidal waters that are >1 acre; >5000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1000 SF in vegetated shallows.

Self-Verification Eligible	**Pre-Construction Notification Required**
In non-tidal waters, the combined permanent and temporary impacts for land-based activities are (a) ≤5,000 SF, (b) not located in riffle and pool complexes and non-tidal vegetated shallows.	1. In non-tidal waters, the combined permanent and temporary impacts for land-based activities are (a) >5000 SF, or (b) located in vegetated shallows or riffle and pool complexes. 2. Permanent and temporary impacts in tidal waters. 3. Water-based wind or hydrokinetic renewable energy generation projects, and hydropower projects. 4. For all activities eligible for authorization under GP 16: a. The activity occurs in tidal waters or in, over or under navigable waters. b. Stream channelization, relocation, impoundment, or loss of streambed occurs. 5. Activities that are not eligible for SV and do not require an IP.

Notes:

1. Utility lines constructed to transfer the energy from the land-based renewable generation or collection facility to a distribution system, regional grid, or other facility may be authorized by GP 6.
2. For the purposes of this GP, the term “pilot project” means an experimental project where the renewable energy generation units will be monitored to collect information on their performance and environmental effects at the project site.

GP 17. RESIDENTIAL, COMMERCIAL AND INSTITUTIONAL DEVELOPMENTS AND RECREATIONAL FACILITIES (AUTHORITIES: §404)

Discharges of dredged or fill material into non-tidal waters for the construction or expansion of: (a) Residences and residential subdivisions; (b) Residential, commercial and institutional building foundations and building pads; and (c) Recreational facilities such as playgrounds, playing fields, bikeways, trails, etc. This GP also authorizes attendant features that include, but are not limited to, roads, parking lots, garages, yards, and utility lines, and stormwater management facilities. This GP authorizes attendant features if they are necessary for the use of the project purpose.

Not authorized under GP 17 (IP required): (a) Permanent impacts that result in loss of non-tidal waters >1/2 acre; >1000 SF in riffle and pool complexes or vegetated shallows; or (b) Subsurface sewerage disposal systems in non-tidal waters.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. In non-tidal waters, the combined permanent and temporary impacts are (a) <5,000 SF, and (b) not located in riffle and pool complexes and non-tidal vegetated shallows. 2. Stream channelization or relocation resulting in loss of streambed that is <200 LF.	1. In non-tidal waters, the combined permanent and temporary impacts are (a) ≥5,000 SF, or (b) located in riffle and pool complexes or non-tidal vegetated shallows. 2. Stream and wetland crossings that require a PCN per GCs 20 TOY Restrictions and GC 31 Stream Work and Crossings & Wetland Crossings. 3. Stream channelization or relocation resulting in loss of streambed that is ≥200 LF. Stream impoundment activities of any kind. 4. Activities on USACE properties & USACE-controlled easements. 5. Activities that are not SV eligible and do not require an IP.

Notes:

1. Stream and wetland crossings (permanent and temporary), including those built with construction mats; and modifications (including sliplining), replacements or extensions to existing crossings.
2. See GC 22 for information on temporary construction mats.
3. Subdivisions: For residential subdivisions, the aggregate total loss of waters of United States authorized by this GP cannot exceed 1/2-acre. This includes any loss of waters of the United States associated with development of individual subdivision lots.

GP 18. AQUACULTURE (Authorities: §10 and §404)

(a) The installation of buoys, floats, racks, trays, nets, lines, tubes, containers, and other structures into navigable waters of the U.S.; (b) Discharges of dredged or fill material into tidal and non-tidal waters necessary for shellfish seeding, rearing, cultivating, transplanting, and harvesting activities; and (c) Shellfish seeding or brushing the flats projects. Any fill material imported to the project from offsite (this is limited to mineral growth medium used in culture trays) shall be clean and of comparable grain size to the native substrate. Activities authorized under this GP must have (a) their MA DMF Aquaculture Certificate letter for licensed shellfish aquaculture sites, (b) documentation that the applicant has coordinated with the U.S. Coast Guard regarding USCG Private Aids to Navigation standards, (c) their MEPA Certificate (if required), and (d) documentation that the applicant has contacted their local authorities (ex. harbormaster, select board, shellfish constable) for authorization of their facility.

Not authorized under GP 18 (IP required): (a) New, or expansions of, impoundments and semi-impoundments of tidal and non-tidal waters for the culture or holding of motile species such as lobster with an impounded area >½ acre; (b) Cultivation of a nonindigenous species (see Note 1) unless that species has been previously cultivated in the waterbody; (c) Cultivation of an aquatic nuisance species (see Note 1); (d) Attendant features such as docks, piers, boat ramps (see GP 4); (e) stockpiles, staging areas, or the deposition of shell material back into tidal and non-tidal waters as waste.

Self-Verification Eligible

1. In tidal waters, a new lease site area is (a) ≤2-acre, (b) not located in salt marsh, natural rocky habitat, or tidal vegetated shallows.

2. In tidal waters, *expansions* of existing lease sites not to exceed 2 acres for the entire site (e.g. 1 acre lease site increasing to a 2 acre lease site may qualify as SV). A PCN is required for expansions in salt marsh, natural rocky habitat, and tidal vegetated shallows.

3. Cages, racks that are elevated ≥2 feet above the ocean floor with legs within a lease site with ≤4 buoys marking the corners.

4. Floating cage strings with a single connecting line, ≤2 anchors and ≤2 end marker buoys per string within a lease site with ≤4 buoys marking the corners.

5. No activities located within 25 feet of tidal vegetated shallows.

6. Culture only indigenous species.

7. Not located in FNP or within a distance of three times the authorized depth of an FNP (see GC 15).

8. Not located in or impinge upon the value of any National Lands or Federal Properties.

9. Floating upweller docks that total ≤600 SF in area.

Pre-Construction Notification Required

1. Discharges of fill material associated with aquaculture >5,000 SF.

2. Research, educational, commercial-viability or experimental aquaculture gear activities >1,000 SF.

3. Kelp or finfish aquaculture.

4. Land-based hatchery intakes >3 inches in diameter.

5. Activities in water depths >10 feet mean low lower water (MLLW).

6. Activities with in-water lines, ropes or chains that are not SV eligible (see #3-4).

7. Activities occur in the Connecticut River from the Turners Falls Dam to the MA/CT border or the Merrimack River from the Essex Dam to the mouth. This is to protect endangered species.

8. New, or expansions of, impoundments and semi-impoundments for the culture or holding of motile species such as lobster with an impounded area ≤1/2 acre.

9. Activities that do not require an IP. Activities that do not require a PCN or an IP may be SV eligible.

Note: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 defines: (a) nonindigenous species as “any species or other viable biological material that enters an ecosystem beyond its historic range, including any such organism transferred from one country into another”; and (b) aquatic nuisance species as “a nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural, or recreational activities dependent on such waters.”

GP 19. MINING ACTIVITIES (Authorities: §10 and §404)

Discharges of dredged or fill material into non-tidal waters for mining activities, except for coal mining and metallic mineral mining activities.

Not authorized under GP 19 (IP required): (a) Permanent impacts >1 acre in non-tidal waters; or (b) Activities in tidal waters.

Self-Verification Eligible	Pre-Construction Notification Required
In non-tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, and (b) not located in riffle and pool complexes, non-tidal vegetated shallows, and streams.	1. In non-tidal waters, the combined permanent and temporary impacts are (a) >5,000 SF, or (b) located in riffle and pool complexes, non-tidal vegetated shallows, and streams. 2. The activity occurs in non-tidal navigable waters of the U.S. 3. Stream channelization, relocation, impoundment, loss of streambed, or discharge of tailings into streams occurs. 4. Work on USACE properties & USACE-controlled easements. 5. Activities that are not eligible for SV and do not require an IP.

GP 20. LIVING SHORELINES[1] (Authorities: §10 and §404)

Construction and maintenance of living shorelines to stabilize banks and shores in tidal waters. In non-tidal waters that are not subject to the ebb and flow of the tide, nature-based bank stabilization techniques such as bioengineering and vegetative stabilization may be authorized by GP 9. This GP authorizes those maintenance and repair activities in-kind that are necessary to address changing environmental conditions.

The following terms must be met for both SVs and PCNs as applicable: (a) Coir logs, coir mats, stone, native oyster shell, native wood debris, and other structural materials must be adequately anchored, of sufficient weight, or installed in a manner that prevents relocation in most wave action or water flow conditions, except for extremely severe storms; (b) For living shorelines consisting of tidal fringe wetlands, native plants appropriate for current site conditions, including salinity and elevation, must be used if the site is planted by the permittee; (c) Discharges of dredged or fill material into waters of the U.S., and oyster or mussel reef structures in navigable waters, must be the minimum necessary for the establishment and maintenance of the living shoreline; (d) If sills or other structural materials per PCN #4 must be constructed to protect fringe wetlands for the living shoreline, those structures must be the minimum size necessary to protect those fringe wetlands; (e) The activity must be designed, constructed, and maintained so that it has no more than minimal adverse effects on water and sediment movement between the waterbody and the shore and the movement of aquatic organisms between the waterbody and the shore; and (f) The living shoreline must be properly maintained and monitored, which may require periodic repair of sills, bioengineered components, or replacing sand fills after severe storms or erosion events. Vegetation may be replanted to maintain the living shoreline.

Not authorized under GP 20 (IP required): (a) The activity is ≥1000 feet in length along the bank (≥2000 LF both banks) unless waived by the District Engineer; or (b) The activity is >30 feet channel ward of mean low water in tidal waters; or (c) Upland reclamation activities; or (d) Stream channelization or relocation activities; or (e) Breakwaters, groins, jetties, or artificial reefs; or (f) Permanent impacts >1,000 SF in existing saltmarsh; >100 SF in existing tidal vegetated shallows.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. Tidal and non-tidal living shorelines ≤100 LF for each bank (≤200 LF for both banks). 2. Combined permanent and temporary impacts ≤5,000 SF in tidal waters, excluding existing salt marsh, tidal vegetated shallows, natural rocky habitat, and mudflats.	1. Tidal and non-tidal living shorelines >100 LF to <1000 LF (>200 LF to <2000 LF for both banks). 2. Permanent and temporary impacts in existing salt marsh, tidal vegetated shallows, or mudflats. 3. Work on USACE properties & USACE-controlled easements. 4. Use of stone sills, native oyster shell, native wood debris, or other structural materials.

Notes:

1. PCNs require monitoring for a minimum of 5 years in accordance with an approved restoration plan, unless otherwise determined by the USACE. The first year of monitoring will be the first year that the site has been through a full growing period after completion of construction and planting.
2. Applicants are encouraged to obtain a MEPA certificate prior to submitting a USACE permit application.

[1] A living shoreline has a footprint that is made up mostly of native material. It incorporates vegetation or other living, natural "soft" elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) for added protection and stability. Living shorelines should maintain the natural continuity of the land-water interface and retain or enhance shoreline ecological processes. Living shorelines must have a substantial biological component, either tidal or lacustrine fringe wetlands or oyster or mussel reef structures.

GP 21. AGRICULTURAL ACTIVITIES (Authority: §404)

Discharges of dredged or fill material in non-tidal waters for agricultural activities, including the construction of building pads for farm buildings. Authorized activities include: (a) installation, placement, or construction of drainage tiles, ditches, or levees; mechanized land clearing; land leveling; the relocation of existing serviceable drainage ditches; and similar activities; (b) construction of farm ponds, excluding perennial streams, provided the farm pond is used solely for agricultural purposes; and (c) discharges of dredged or fill material to relocate existing serviceable drainage ditches constructed in non-tidal streams.

Not authorized under GP 21 (IP required): (a) Permanent impacts that are >1 acre in non-tidal waters; or >1000 SF in riffle and pool complexes, or non-tidal vegetated shallows; (b) Work in tidal waters; or (c) Construction of farm ponds in perennial streams.

Self-Verification Eligible	**Pre-Construction Notification Required**
In non-tidal waters, the combined permanent and temporary impacts are (a) ≤5,000 SF, and (b) not located in riffle and pool complexes and non-tidal vegetated shallows.	1. In non-tidal waters, the combined permanent and temporary impacts are (a) >5,000 SF, or (b) located in riffle and pool complexes and non-tidal vegetated shallows. 2. Activities occur in non-tidal navigable waters of the U.S. 3. Stream channelization, relocation, impoundment, loss of streambed, or farm ponds in non-perennial streams occurs. 4. Activities that are not eligible for SV and do not require an IP.

Note: Some discharges for agricultural activities may qualify for an exemption under Section 404(f) of the CWA (see 33 CFR 323.4). This GP authorizes the construction of farm ponds that do not qualify for the CWA §404(f)(1)(C) exemption because of the recapture provision at §404(f)(2).

GP 22. RESHAPING EXISTING DRAINAGE DITCHES, CONSTRUCTION OF NEW DITCHES, AND MOSQUITO MANAGEMENT (Authorities: §10 and §404)

Discharges to modify the cross-sectional configuration of currently serviceable drainage ditches constructed in tidal and non-tidal waters, for the purpose of improving water quality by regrading the drainage ditch with gentler slopes, which can reduce erosion, increase growth of vegetation, and increase uptake of nutrients and other substances by vegetation. Also authorized are mosquito reduction activities.

Not authorized under GP 22 (IP required): Stream channelization, relocation, impoundments, or loss of streambed.

Self-Verification Eligible	**Pre-Construction Notification Required**
≤500 linear feet of drainage ditch will be reshaped provided excavated material is deposited in an upland area.	1. >500 linear feet of drainage ditch will be reshaped, excavated material is deposited in a water of the U.S., or the reshaping of the ditch increases the drainage capacity beyond the original as-built capacity or expands the area drained by the ditch as originally constructed (i.e., the capacity of the ditch is not the same as originally constructed or drains additional wetlands or other waters of the U.S.). 2. Permanent and temporary impacts in tidal vegetated shallows. 3. New ditches or relocation of drainage ditches constructed in waters of the U.S. (i.e., the location of the centerline of the reshaped drainage ditch is not approximately the same as the location of the centerline of the original drainage ditch). 4. Activities that are not eligible for SV and do not require an IP.

Note: Some ditch activities are exempt under Section 404(f) of the CWA (see 33 CFR 323.4).

GP 23. LINEAR TRANSPORTATION PROJECTS AND WETLAND/STREAM CROSSINGS (Authorities: §10 & §404)

Activities[1] required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features. This GP also authorizes temporary structures, fills, and work, including the use of temporary mats (see Note 1), necessary to construct the linear transportation project.

Not authorized under GP 23 (IP required): (a) Permanent impacts for any single and complete project that are >1 acre in non-tidal waters; >½ acre in tidal waters; >1000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >100 SF in tidal vegetated shallows; (b) Temporary impacts in tidal waters that are >1 acre; >5000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1000 SF in vegetated shallows; (c) Non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars (see GP 17); or (d) New tide gates.

Self-Verification Eligible

1. In non-tidal waters, the combined permanent and temporary impacts are a) ≤5,000 SF; b) not located in riffle and pool complexes and non-tidal vegetated shallows; and c) meet the Massachusetts River and Stream Crossing Standards

2. Existing crossings (e.g., culverts, elliptical or arch pipes, etc.) are not modified by (a) decreasing the diameter of the crossing or (b) changing the friction coefficient, such as through slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe), culvert relining or invert lining.

3. Stream channelization or relocation resulting in loss of streambed that is <200 LF.

Pre-Construction Notification Required

1. In non-tidal waters, the combined permanent and temporary impacts are a) >5,000 SF; b) located in vegetated shallows or riffle and pool complexes; or c) do not meet the Massachusetts River and Stream Crossing Standards (see note 4).

2. The activity occurs in tidal waters, salt marsh, or in, over or under navigable waters of the U.S.

3. Stream and wetland crossings that require a PCN per GC 20 TOY Restrictions and GC 31 Stream Work and Crossings & Wetland Crossings.

4. Stream channelization or relocation resulting in loss of streambed that is ≥200 LF. Stream impoundment activities of any kind.

5. Work on USACE properties & USACE-controlled easements.

6. Activities that are not eligible for SV and do not require an IP.

Notes:

1. See GC 22 for information on temporary construction mats.
2. Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the U.S. may be authorized under GP 8.
3. Loss of streambed does not require a PCN when bridge piers or similar supports are used.
4. In their PCN application submission to the USACE, applicants must explain why they are unable to meet the Massachusetts River and Stream Crossing Standards.
5. For tidal crossings, modeling is encouraged as a method to verify the proposed crossing would not be undersized and resilient to the effects of sea level rise.

[1] Stream crossings must conform with the MA Stream Crossing Guidelines when practicable and comply with all applicable GCs of this document (Section IV).

GP 24. TEMPORARY CONSTRUCTION, ACCESS, AND DEWATERING (Authorities: §10 and §404)

Temporary structures, work, and discharges, including cofferdams, necessary for construction activities or access fills or dewatering of construction sites that are not authorized under another GP activity.

Not authorized under GP 24 (IP required): (a) Permanent structures or impacts; (b) Temporary impacts in tidal waters that are >1 acre; >5000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1000 SF in vegetated shallows; (c) Use of cofferdams to dewater wetlands or other aquatic areas to change their use; (d) Temporary stream crossings (see GPs 6, 17, 23); (e) Structures or fill left in place after construction is completed.

Self-Verification Eligible	**Pre-Construction Notification Required**
1. In non-tidal waters, temporary impacts are a) ≤5,000 SF; b) not located in riffle and pool complexes and non-tidal vegetated shallows. 2. In tidal waters, temporary impacts are a) ≤5,000 SF, b) ≤1,000 SF in mudflats and/or natural rocky habitat, and c) not located in saltmarsh and tidal vegetated shallows. 3. Structures in navigable waters of the U.S. provided impacts do not require a PCN and they are left in place ≤30 days.	1. In non-tidal waters, temporary impacts are a) >5,000 SF; b) located in riffle and pool complexes or non-tidal vegetated shallows. 2. In tidal waters, temporary impacts are a) >5,000 SF; b) >1,000 SF in mudflats and/or natural rocky habitat, or (c) located in saltmarsh and tidal vegetated shallows. 3. Activities in the Connecticut River from the Turners Falls Dam to the MA/CT border, or Merrimack River from the Essex Dam to the mouth, involving temporary impacts unless they are performed <5 feet waterward from OHW or HTL and in the dry. This is to protect endangered species; or 4. Activities not eligible for SV and do not require an IP.

Notes:

1. Turbidity or sediment resuspension is generally not considered to occur when properly using management techniques to work in dry conditions. See GC 25.
2. Total impact areas under SV Eligible 1-2 exclude use of temporary construction mats. See GC 22 for information on temporary construction mats.
3. An SVN submittal to USACE is not required for SV #3 above.

GP 25. EMERGENCY SITUATIONS (Authorities: §10 and §404)

Structures or work in or affecting navigable waters of the U.S. and the discharge of dredged or fill material into waters of the U.S., including wetlands, necessary for repair or protection measures associated with an emergency situation[1], MassDEP Emergency Declaration/Certification, or FEMA Declared Disaster. The activity shall be the minimum necessary to alleviate the immediate emergency unless that additional work would result in no more than minimal effects to aquatic environment and is necessary to reduce the potential for future failure or loss of the structure or site. Typical activities authorized under this GP include, but are not limited to, restoration of damaged areas; bank stabilization; temporary fills for staging, access, and dewatering; and, repair, replacement, or rehabilitation of existing structures and/or fills (i.e., roads, bridges, utility pipelines and flood control structures, including attendant features, and other existing structures located in waters of the U.S.).

For the restoration of areas damaged by storms floods, or other discrete events: (a) The restored area must not extend waterward of the ordinary high-water mark or high tide line that existed prior to the damage. (b) The slope of the restored area below the ordinary high-water mark or high tide line must not exceed the slope that existed prior to the damage. (c) The bottom elevation of the restored area must not exceed the bottom elevation that existed prior to the damage (i.e., the restored area must not result in a reduction in the depth of the waterbody that existed prior to the damage). (d) Except in cases of FEMA reimbursement, the activity must be initiated, under contract to commence, or funds shall be allocated for the activity within 30 days of authorization under GP 25.

Not authorized under GP 25 (IP required): (a) Permanent impacts for a single and complete project >1/2 acre in tidal waters, unless the district engineer waives this criterion by making a written determination concluding that the activity will result in no more than minimal adverse environmental effects; >1,000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or >100 SF in tidal vegetated shallows; (b) Temporary impacts in tidal waters that are >5,000 SF in saltmarsh, mud flats, or riffle and pool complexes; or >1,000 SF in vegetated shallows; (c) New structures or fills that did not previously exist before the storm event or other discrete event (see other GPs).

Self-Verification Eligible	**Pre-Construction Notification Required**
1. Activities that qualify under a Severe Weather Emergency Declaration pursuant to 310 CMR 10.06(8) and/or receive an Emergency Certification pursuant to 310 CMR 10.06 and/or meet the requirements of 314 CMR 9.12(2) or (3); and 2. Activities eligible under a FEMA Declared Disaster that also comply with #1 above.	1. Activities that are eligible under a FEMA Declared Disaster and do not qualify under SV #1. 2. Minor deviations in the structure or fill area, including those to existing structures or fills are authorized due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to alleviate the emergency. 3. Activities that are not eligible for SV and do not require an IP.

Notes:

1. Review the GCs (Section IV) to confirm if a PCN is not required elsewhere in this document.
2. If the activity is not a MassDEP Emergency Declaration/Certification, does not meet the requirements of 314 CMR 9.12(2) or (3), or is not a FEMA Declared Disaster, applicants must explain in writing why their activity qualifies as an emergency (see footnote) to be eligible under GP 25.
3. SV eligible activities qualify under the general 401 WQC MassDEP issued for the 2023 MA GPs (GC 9).

[1] An emergency, as determined by this office and 33 CFR 325.2(e)(4), is one which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a Department of the Army permit is not undertaken within a time period less than the normal time to process the request under standard processing procedures.

SECTION IV. GENERAL CONDITIONS:

To qualify for GP authorization, the applicant must comply with the following general conditions, as applicable, in addition to authorization-specific conditions imposed by the division or district engineer.

1. Other Permits
2. Federal Jurisdictional Boundaries
3. Single and Complete Projects
4. Use of Multiple General Permits
5. Suitable Material
6. Tribal Rights & Burial Sites
7. Avoidance, Minimization, and Compensatory Mitigation
8. Water Quality & Stormwater Management
9. Coastal Zone Management
10. Federal Threatened and Endangered Species
11. Essential Fish Habitat
12. National Lands
13. Wild and Scenic Rivers
14. Historic Properties
15. USACE Property and Federal Projects (§408)
16. Navigation
17. Permit/Authorization Letter On-Site
18. Storage of Seasonal Structures
19. Pile Driving and Pile Removal in Navigable Waters
20. Time of Year Restrictions
21. Heavy Equipment in Wetlands
22. Temporary Fill & Construction Mats
23. Restoration of Wetland Areas
24. Bank Stabilization
25. Soil Erosion and Sediment Controls
26. Aquatic Life Movements and Management of Water Flows
27. Spawning, Breeding, and Migratory Areas
28. Vernal Pools
29. Invasive Species
30. Fills Within 100-Year Floodplains
31. Stream Work and Crossings & Wetland Crossings
32. Utility Line Installation and Removal
33. Water Supply Intakes
34. Coral Reefs
35. Blasting
36. Inspections
37. Maintenance
38. Property Rights
39. Transfer of GP Verifications
40. Modification, Suspension, and Revocation
41. Special Conditions
42. False or Incomplete Information
43. Abandonment
44. Enforcement Cases
45. Previously Authorized Activities
46. Duration of Authorization

1. Other Permits. Authorization under these GPs does not obviate the need for the permittee to obtain other Federal, State, or local permits, approvals, or authorizations required by law. Permittees are responsible for obtaining all required permits, approvals, or authorizations. Activities that are not regulated by the State, but subject to USACE jurisdiction, may still be eligible for these GPs.

2. Federal Jurisdictional Boundaries.
a. Applicability of these GPs shall be evaluated with reference to Federal jurisdictional boundaries. Activities shall be evaluated with reference to "waters of the U.S." under the CWA (33 CFR 328) and "navigable waters of the U.S." under §10 of the Rivers and Harbors Act of 1899 (33 CFR 329). Permittees are responsible for ensuring that the boundaries used satisfy the Federal criteria defined at 33 CFR 328-329. These sections prescribe the policy, practice, and procedures to be used in determining the extent of the USACE jurisdiction. Note: Waters of the U.S. includes all waters pursuant to 33 CFR 328.3(a), and adjacent wetlands as the term is defined in 33 CFR 328.3(c).
b. Wetlands shall be delineated in accordance with the USACE Wetlands Delineation Manual and the most recent Northcentral/Northeast Regional Supplement. Wetland delineation and jurisdiction information is located at: www.nae.usace.army.mil/missions/regulatory/jurisdiction-and-wetlands and maps are located at www.nae.usace.army.mil/missions/regulatory/state-general-permits/massachusetts-general-permit.
c. Vegetated shallows shall be delineated when present on the project site. Vegetated shallow survey guidance and maps are located at: www.nae.usace.army.mil/missions/regulatory/state-general-permits/massachusetts-general-permit.
d. Natural rocky habitats shall be delineated when present on the project site. The definition of natural rocky habitats is in Section VII of the MA GP. Natural rocky habitat survey guidance and maps are located at: www.nae.usace.army.mil/ missions/regulatory/state-general-permits/massachusetts-general-permit.

3. Single and Complete Projects. The MA GP shall not be used for piecemeal work and shall be applied to single and complete projects. The term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers.
a. For non-linear projects, a single and complete project must have independent utility. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed, even if the other phases were not built, can be considered as separate single and complete projects with independent utility.
b. Unless USACE determines the activity has independent utility, all components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be evaluated as one single and complete project.
c. For linear projects such as power lines or pipelines with multiple crossings, a "single and complete project" is all crossings of a single water of the U.S. (i.e., single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately. If any crossing requires a PCN review or an individual permit review, then the entire linear project shall be reviewed as one project under PCN or the individual permit procedures.

4. Use of Multiple General Permits. The use of more than one GP for a single and complete project is prohibited, except when the acreage loss of waters of the U.S. authorized by the GPs does not exceed the acreage limit of the GPs with the highest specified acreage limit. For example, if a road crossing over waters is constructed under GP 23, with an associated utility line

crossing authorized by GP 6, if the maximum acreage loss of waters of the U.S. for the total project is ≥1 acre it shall be evaluated as an IP.

5. Suitable Material & Discharge of Pollutants. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). All activities involving any discharge into waters of the U.S. authorized under these GPs shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this GP, the authorized work shall be modified to conform with these standards within six months from the effective date of such revision or modification, or within a longer period of time deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Unless monitoring data indicates otherwise, applicants may presume that their activity complies with state water quality standards provided they are in compliance with the Section 401 WQC (Applicable only to the Section 404 activity).

6. Tribal Rights & Burial Sites

a. For all SV and PCN applications, prospective permittees shall follow the guidance set forth in Appendix A, Guidance for NHPA Section 106 Compliance in Massachusetts.

b. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

c. Many tribal resources are not listed on the National Register of Historic Places (NRHP) and may require identification and evaluation in collaboration with the identifying tribe and by qualified professionals. The Tribal Historic Preservation Officer (THPO) and State Historic Preservation Officer (SHPO) may be able to assist with locating information on:

i. Previously identified tribal resources; and
ii. Areas with potential for the presence of tribal resources.

d. Discovery of Previously Unknown Remains and Artifacts: If any previously unidentified human remains, cultural deposits, or artifacts are discovered while accomplishing the activity authorized by this permit, you must immediately notify the USACE of what you have found, and to the maximum extent practicable, cease work and avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The USACE will initiate the appropriate the Federal, Tribal, and state coordination required to determine if the items or remains are eligible for listing in the NRHP and warrant a recovery effort or can be avoided.

e. Burial Sites: Burial sites, marked or unmarked, are subject to state law (Massachusetts Unmarked Burial Law). Native American burial sites on federal or tribal land are subject to the provisions of Native American Graves Protection and Repatriation Act (NAGPRA). Regulated activities may not result in disturbance or removal of human remains until disposition of the remains has been determined by the appropriate authority under these laws, and the work is authorized by the USACE. Regulated activities which result in an inadvertent discovery of human remains must stop immediately, and the USACE, as well as the appropriate state and tribal authority, must be notified. Regulated work at inadvertent discovery sites requires compliance with state law or NAGPRA, as appropriate, prior to re-starting work.

7. Avoidance, Minimization, and Compensatory Mitigation. To qualify under the MA GP, activities must comply with Section V Mitigation Standards and the following as applicable:

a. Avoid and Minimize: Activities must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site. Avoidance and minimization are required to the extent necessary to ensure that the adverse effects to the aquatic environment (both area and function) are no more than minimal.

b. Compensatory mitigation for unavoidable impacts to waters of the U.S., including direct, indirect, secondary, and temporal loss, will generally be required for permanent impacts that exceed the thresholds identified in Section V, and may be required for temporary impacts, to offset unavoidable impacts which remain after all appropriate and practicable avoidance and minimization has been achieved and to ensure that the adverse effects to the aquatic environment are no more than minimal. Proactive restoration projects or temporary impact work with no secondary effects may generally be excluded from this requirement.
c. Mitigation proposals shall follow the guidelines found in the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule April 10, 2008; 33 CFR 332. Prospective permittees may purchase mitigation credits in-lieu of permittee-responsible mitigation as compensation for unavoidable impacts to waters of the U.S. in the Commonwealth of Massachusetts.

8. Water Quality & Stormwater Management. The 401 WQC requirement applies to all activities listed under GPs 1-25, unless determined otherwise by MassDEP. Permittees shall also satisfy stormwater management requirements in Massachusetts.

a. General 401 WQC: MassDEP issued a WQC on April 21, 2023 which conditionally certifies all activities in GPs 1 – 24 eligible for SV and PCN so long as the activity is described in 314 CMR 9.03, and is not an activity described in 314 CMR 9.04, and so long as the activity meets all other requirements, terms and conditions of the WQC. The MassDEP WQC also conditionally certifies activities described in GP 25 so long as the activity meets all other conditions of the WQC. Emergency projects described in GP 25 must obtain an emergency certification or otherwise be authorized pursuant to 310 CMR 10.06, qualify under a Severe Weather Emergency Declaration pursuant to 310 CMR 10.06(8) issued by the MassDEP, or meet the requirements of 9.12(2) or (3) in order to be certified under the WQC. Prospective permittees may refer to the following link to determine if their activity is eligible: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/ Massachusetts-General-Permit/. The General 401 WQC is located here, and it provides detailed information regarding what activities are certified and the conditions for certification. Activities listed in 314 CMR 9.03 that are not exempt from the Wetland Protection Act must have a valid Final Order of Conditions (OOC) or Final Restoration Order of Conditions pursuant to 310 CMR 10.00 to be eligible under the General 401 WQC.
b. Individual 401 WQC: Prospective permittees shall contact MassDEP and apply for an individual 401 WQC if their activity does not qualify for a General 401 WQC as outlined above. MassDEP may issue, waive, or deny the individual 401 WQC on a case-by-case basis. All activities listed in 314 CMR 9.04 must obtain an individual 401 WQC from MassDEP to be eligible under these GPs. When an Individual 401 WQC is required for *PCN activities*, the prospective permittee shall submit their Individual 401 WQC application concurrently to MassDEP and USACE to comply with 40 CFR 121.
c. The prospective permittee is responsible for determining the appropriate 401 WQC requirement and submitting this information to the USACE at the time of their PCN application or when completing their SVN. Prospective permittees that are unsure of whether their activity has been certified should contact MassDEP for a determination.
d. As applicable, all activities shall be compliant with the Massachusetts Stormwater Handbook. The Stormwater Handbook can be accessed on the NAE Regulatory website here: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/.
e. No work requiring authorization under Section 404 of the CWA may be performed unless (1) the prospective permittee qualifies for coverage under the April 21, 2023 General 401 WQC, (2) the prospective permittee receives an individual Section 401 WQC from the MassDEP, or (3) the MassDEP waives individual Section 401 WQC.

9. Coastal Zone Management. The permittee must obtain CZM consistency concurrence when an activity is located in the coastal zone in order to be eligible under the MA GP. This requirement

shall be satisfied by acquiring one of the following from the Massachusetts Office of Coastal Zone Management (MA CZM):

a. General CZM Federal Consistency Concurrence (General Concurrence): MA CZM has granted General Concurrence for all SV and PCN activities for GPs 1-25. The prospective permittee must obtain all applicable permits and approvals before construction of the authorized activity begins (e.g., before work begins on site). For SVs, General Concurrence is automatically granted and no further action is required from the prospective permittee. For PCNs, the USACE will coordinate with MA CZM to acquire General Concurrence as part of the PCN application review.
b. Individual CZM Federal Consistency Concurrence (Individual Concurrence): In certain cases, MA CZM may elevate any GP activity 1-25 and require Individual Concurrence. The prospective permittee must contact MA CZM and follow the procedures to obtain Individual Concurrence as determined appropriate by MA CZM.
c. Permittees must obtain CZM consistency concurrence as outlined above before commencing work authorized under these GPs.

10. Federal Threatened and Endangered Species

a. No activity is authorized under any GP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any GP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."
b. Other Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If a PCN is required for the proposed activity, the Federal permittee must provide USACE with the appropriate documentation to demonstrate compliance with those requirements. The USACE will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.
c. USFWS ESA-Listed Species: Non-federal applicants shall use the USFWS website, Information for Planning and Consultation (IPAC), to determine if their activity is located within the ESA-listed species range. The IPAC website can be accessed on the NAE Regulatory website: https://www. nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/. Applicants shall ensure they have an updated, valid species list before construction begins. This may require applicants to update their species list in IPAC before the start of construction. Note: Applicants should refer to the NAE Regulatory Website at the link above to determine if they have been designated as a non-federal representative. Applicants shall complete Section 7 consultation according to the guidance document located on the NAE Regulatory Website. After completing the Rangewide Determination Key and reaching the outcome "may affect, not likely to adversely affect", you may be required to wait up to 15 days before that outcome is final and compliance under Section 7 of the ESA is fulfilled.

i. *Self-Verification Criteria*: The activity is SV-eligible if:
   1) The activity is not located within the ESA-listed species range;
   2) Another (lead) Federal agency has completed Section 7 consultation; or
   3) The activity is located within the ESA-listed species range ***and*** USACE has designated the applicant as a non-federal representative under 50 CFR 402.08 of the ESA for all

species within the project's action area. As the non-federal representative, the applicant shall complete consultation through IPAC and reach the outcome of "no effect" or "not likely to adversely affect".

ii. *Pre-Construction Notification Criteria*: The activity requires a PCN if:

1) The activity is located within the ESA-listed species range ***and*** USACE has NOT designated the applicant as a non-federal representative under 50 CFR 402.08 of the ESA for all species within the project's action area;

2) The activity is located in designated or proposed critical habitat; or

3) The activity is located within the ESA-listed species range and completion of the IPAC determination key has resulted in the outcome of "may affect" or "may affect, likely to adversely affect"; or

4) A PCN is required elsewhere in this document.

d. NOAA-Listed Species: Non-federal applicants shall refer to the Section 7 Mapper for federally listed species to determine if any species are mapped as present. When NOAA-listed species are present, the applicant shall generate a species report through the mapper and submit this document as part of their PCN or SVN submission. The NOAA Fisheries' Section 7 Mapper can be accessed here on the NAE Regulatory website here: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/.

e. Authorization of an activity by an GP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

11. Essential Fish Habitat (EFH).

a. SV eligible activities have been determined to result in no more than minimal adverse effects, provided the permittee complies with all terms and conditions of the MA GP as appliable to the activity. NMFS has granted General Concurrence [50 CFR 600.920(g)] for all SV eligible activities. These activities do not require project specific EFH consultation.

b. For PCN required activities, the applicant is required to describe and identify potential adverse effects to EFH and should refer to NOAA Fisheries' EFH Mapper (http://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper) and Omnibus Essential Fish Habitat Amendment 2 Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts (https://www.habitat.noaa.gov/application/efhmapper/oa2_efh_hapc.pdf). If an activity is located within EFH, the PCN application must contain:

1. A description of the action located in EFH.
2. An analysis of the potential adverse effects of the action on EFH and the managed Species.
3. Conclusions regarding the effects of the action on EFH.
4. Proposed mitigation, if applicable (refer to the mitigation thresholds located in Section V).

c. Federal agencies shall follow their own procedures for complying with the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act. For activities requiring a PCN, the applicant is responsible for furnishing documentation that demonstrates consultation for EFH has been completed.

d. For PCN activities, no work may commence until EFH consultation as required by the Magnuson-Stevens Act has been completed.

12. National Lands. Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary, National Historic Landmarks or any other area administered by the National Park Service, U. S. Fish and Wildlife Service (USFWS) or U.S. Forest Service (USFS) require a PCN or Individual Permit. Federal land managers seeking authorization for activities located in the above listed National Lands may proceed under SV, unless a PCN is required elsewhere in this document.

13. Wild and Scenic Rivers. The following activities in designated river or study river segments in the National Wild and Scenic River (WSR) System require a PCN unless the Federal agency with direct management responsibility for such river, in Massachusetts this is generally the National Park Service, has determined in writing to the proponent that the proposed work will not adversely affect the WSR designation or study status:

a. Activities that occur in WSR segments, in and 0.25 miles up or downstream of WSR segments, or in tributaries within 0.25 miles of WSR segments;
b. Activities that occur in wetlands within 0.25 miles of WSR segments;
c. Activities that have the potential to alter free-flowing characteristics in WSR segments.

No GP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

As of May 10, 2023, affected rivers in Massachusetts include: the Taunton River (40 miles), Sudbury River (16.6 miles), Assabet River (4.4 miles), Concord River (8 miles), Nashua River (27 miles), Squannacook River (16.3 miles), Nissitissit River (4.7 miles), and the Westfield River, including West Branch, Middle Branch, Gendale Brook, East Branch, Drowned Land Brook, Center Brook, Windsor Jambs Brook, Shaker Mill Brook, Depot Brook, Savery Brook, Watson Brook, Center Pond Brook (78.1 miles). The most up to date list of designated and study rivers and their descriptions may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

14. Historic Properties

a. For all SV and PCN applications, permittees shall follow the guidance set forth in Appendix A, Guidance for NHPA Section 106 Compliance in Massachusetts.

b. No undertaking authorized by these GPs shall cause effects[1] (defined in 36 CFR Part 800 and 33 CFR Part 325, Appendix C, and its Interim Guidance) on properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places (NRHP)[2], including previously unknown historic properties within the permit area, unless the USACE or another Federal action agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act (Section 106). If another Federal agency is determined the lead federal agency for compliance with Section 106, applicant must obtain the appropriate documentation and provide this information to the USACE to demonstrate compliance with Section 106. The applicant shall not begin the activity until the USACE notifies them in writing that the documentation provided satisfies Section 106 requirements.

[1] Effect means the alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register of Historic Properties.
[2] See the NAE Regulatory website, National Register of Historic Places link here: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/.

c. Many historic properties are not listed on the NRHP and may require identification and evaluation by qualified historic preservation and/or archaeological consultants. The State Historic Preservation Officer (SHPO), Massachusetts Board of Underwater Archaeological Resources (BUAR), local historical societies, certified local governments, general public, and NRHP may also be able to assist with locating information on:

i. Previously identified historic properties; and
ii. Areas with potential for the presence of historic properties.

d. Discovery of Previously Unknown Remains and Artifacts: If any previously unidentified human remains, cultural deposits, or artifacts are discovered while accomplishing the activity authorized by this permit, you must immediately notify the USACE of what you have found, and to the maximum extent practicable, cease work and avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The USACE will initiate the Federal, State and tribal coordination required to determine if the items or remains warrant a recovery effort and/or if the site is eligible for listing in the National Register of Historic Places.

e. Section 110k: Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. § 306113) prevents the USACE from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106, has intentionally significantly adversely effected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the USACE, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the USACE is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties effected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or effects historic properties on tribal lands or effects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

f. Underwater Archaeological Resources: Under Massachusetts General Law Ch. 6, s.'s 179-180, and Ch. 91, s. 63, the BUAR has statutory jurisdiction within state waters and is the sole trustee of the Commonwealth's underwater heritage, charged with the responsibility of encouraging the discovery and reporting, as well as the preservation and protection, of underwater archaeological resources. Underwater archaeological resources located within the waters of the Commonwealth of Massachusetts are property of the Commonwealth, which holds title to these resources and retains regulatory authority over their use. Under Massachusetts General Law, no person, organization or corporation may "remove, displace, damage, or destroy" any underwater archaeological resources located within the Commonwealth's submerged lands except through consultation with the BUAR and in conformity with the permits it issues. https://www.mass.gov/orgs/board-of-underwater-archaeological-resources.

15. USACE Property and Federal Projects. (33 USC §408)

a. USACE projects and property can be found at: https://www.nae.usace.army.mil/Missions/Civil-Works/.

b. In addition to any authorization under these GPs, prospective permittee shall contact the USACE Real Estate Division (https://www.nae.usace.army.mil/Missions/Real-Estate-Division/) at (978) 318-8585 for work occurring on or potentially affecting USACE properties and/or USACE-controlled easements. Work may not commence on USACE properties and/or USACE-controlled easements until they have received any required USACE real estate documents evidencing site-specific permission to work.

c. Any proposed temporary or permanent occupation or alteration of a Federal project (including, but not limited to, a levee, dike, floodwall, channel, anchorage, breakwater, seawall, bulkhead, jetty, wharf, pier, or other work built or maintained but not necessarily owned by the United States),

is not eligible for SV and requires a PCN. This includes all proposed structures and work in, over, or under a USACE federal navigation project (FNP) or in the FNP's buffer zone. The buffer zone is an area that extends from the horizontal limits of the FNP to a distance of three times the FNP's authorized depth. The activity also requires review and approval by the USACE pursuant to 33 USC 408 (Section 408 Permission). The prospective permittee may reach out to the POCs located here: https://www.nae.usace.army.mil/ Missions/Section-408/.
d. Any structure or work constructed in a FNP or its buffer zone shall be subject to removal at the owner's expense prior to any future USACE dredging or the performance of periodic hydrographic surveys.
e. Where a Section 408 permission is required, written verification for the PCN will not be issued prior to the decision on the Section 408 permission request.

16. Navigation
a. No activity may cause more than a minimal adverse effect on navigation.
b. Any safety lights and signals prescribed by the U.S. Coast Guard, must be installed, and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.
c. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.
d. The permittee understands and agrees that if future U.S. operations require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from USACE, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

17. Permit/Authorization Letter On-Site. For PCNs, the permittee shall ensure that a copy of these GPs and the accompanying authorization letter are at the work site (and the project office) whenever work is being performed, and that all personnel with operational control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of USACE jurisdiction at the site of the work authorized by these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means these GPs, including GCs and the authorization letter (including its drawings, plans, appendices, special conditions, and other attachments), and any permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire authorization letter, and no contract or sub-contract shall require or allow unauthorized work in areas of USACE jurisdiction. For SVs, the permittee shall ensure that a complete and signed copy of the SVN is present on site during construction and is made available for review at any time by USACE and other Federal, State, & Local regulatory agencies. A complete and signed copy of the SVN must be submitted to USACE Regulatory within 30 days of initiating construction of the authorized activity, unless stated otherwise in the applicable GP.

18. Storage of Seasonal Structures. Coastal structures such as pier sections, floats, etc., that

are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location, located above MHW and not in tidal wetlands. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate and the substrate seaward of MHW.

19. Pile Driving and Pile Removal in Navigable Waters.
a. Derelict, degraded or abandoned piles and sheet piles in navigable waters of the U.S., except for those inside existing work footprints for piers, must be completely removed, cut and/or driven to 3 feet below the substrate to prevent interference with navigation, and existing creosote piles that are affected by project activities shall be completely removed if practicable. In areas of fine-grained substrates, piles must be removed by the direct, vibratory or clamshell pull method[1] to minimize sedimentation and turbidity impacts and prevent interference with navigation from cut piles. Removed piles shall be disposed of in an upland location landward of MHW or OHW and not in wetlands, tidal wetlands or mudflats.
b. A PCN is required for the installation or removal of structures with jetting techniques.
c. A PCN is required for the installation of >12 inch-diameter piles of any material type or steel piles of any size in tidal waters, unless they are installed in the dry. If piles are not installed in the dry:
i. Impact pile driving shall commence with an initial set of three strikes by the hammer at 40% energy, followed by a one-minute wait period, then two subsequent 3-strike sets at 40% energy, with one minute waiting periods, before initiating continuous impact driving.
ii. Vibratory pile driving shall be initiated for 15 seconds at reduced energy followed by a one-minute waiting period. This sequence of 15 seconds of reduced energy driving, one-minute waiting period shall be repeated two more times, followed immediately by pile-driving at full rate and energy.
iii. In addition to using a soft start at the beginning of the workday for pile driving as described in 19c(i-ii), a soft start must also be used at any time following a cessation of pile driving for a period of 30 minutes or longer.
d. Bubble curtains may be used to reduce sound pressure levels during vibratory or impact hammer pile driving.

20. Time-of-Year (TOY) Restrictions. Activities that include in-water work must comply with the TOY Restrictions below to be SV eligible, otherwise a PCN is required. PCN submittals shall contain written justification for deviation from the TOY Restrictions. The term “in-water work” does not include conditions where the work site is “in-the-dry” (e.g., intertidal areas exposed at low tide). The term “in-the-dry” includes work contained within a cofferdam so long as the cofferdam is installed and subsequently removed outside the TOY Restriction. The TOY restrictions stated in Appendix B of the MA DMF Technical Report TR-47[2] can apply instead for activities in tidal waters if (1) TOYs are provided for a specific waterbody where the activity is proposed and (2) the TOYs are less restrictive than below. The activity must also not require a PCN elsewhere in this document to be SV eligible.

[1] Direct Pull: Each piling is wrapped with a choker cable or chain that is attached at the top to a crane. The crane then pulls the piling directly upward, removing the piling from the sediment. Vibratory Pull: The vibratory hammer is a large mechanical device (5-16 tons) that is suspended from a crane by a cable. The vibrating hammer loosens the piling while the crane pulls up. Clamshell Pull: This can remove intact, broken or damaged pilings. The clamshell bucket is a hinged steel apparatus that operates like a set of steel jaws. The bucket is lowered from a crane and the jaws grasp the piling stub as the crane pulls up. The size of the clamshell bucket is minimized to reduce turbidity during piling removal.
[2] The MA DMF Technical Report TR-47: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/

	TOY Restriction (No work)
Non-tidal Waters	Defer to TR-47
Tidal Waters	January 15 – November 15

Alternate work windows proposed under a PCN will generally be coordinated with the USFWS and NMFS. Resulting written verifications may include species-specific work allowed windows.

21. Heavy Equipment in Wetlands. Operating heavy equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained, or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall:

i. Have low ground pressure (typically ≤3 psi);

ii. Be placed on swamp/construction/timber mats (herein referred to as "construction mats" or "mats") that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. See GC 22 for information on the placement of construction mats; or

iii. Be operated on adequately dry or frozen wetlands such that shear pressure does not cause subsidence of the wetlands immediately beneath the equipment and upheaval of adjacent wetlands. Construction mats are to be placed in the wetland from the upland or from equipment positioned on mats if working within a wetland. Dragging construction mats into position is prohibited. Other support structures that are capable of safely supporting equipment may be used with written USACE authorization.

22. Temporary Fill, Work & Construction Mats.

a. *Construction mats in non-tidal waters*: Temporary construction mats shall be in place ≤1 year *and* for one growing season or less to be SV eligible. A PCN is required if construction mats are in place >1 year *or* for more than one growing season. Construction mats can be placed in an area of any size in non-tidal waters. The activity may occur in segments to ensure the requirements for SV above are met, otherwise a PCN is required.

b. *Construction mats in tidal waters*: Temporary construction mats placed in an area <5,000 SF in tidal waters are SV eligible, provided those mats are in place ≤6 months. Temporary construction mats placed in an area ≥5,000 SF or in place >6 months in tidal waters require a PCN.

c. *Management of construction mats:* At a minimum, construction mats shall be managed in accordance with the following construction mat best management practices (BMPs):

1. Mats shall be in good condition to ensure proper installation, use, and removal.
2. As feasible, mats shall be placed in a location that will minimize the amount of mats needed for the wetland crossing(s).
3. Inspect mats prior to their re-use and remove any plant debris. Mats are to be thoroughly cleaned before re-use to prevent the spread of invasive plant species.
4. Impacts to wetland areas shall be minimized during installation, use, and removal of the mats.
5. Adequate erosion & sediment controls shall be installed at approaches to mats to promote a smooth transition to, and minimize sediment tracking onto, the mats.
6. In most cases, mats should be placed along the travel area so that the individual boards are resting perpendicular to the direction of traffic. No gaps should exist between mats. Place mats far enough on either side of the resource area to rest on firm ground.

d. A PCN is required for temporary fills in place >2 years. All temporary fills and disturbed soils shall be stabilized to prevent the material from eroding into waters of the U.S. where it is not authorized. Work shall include phased or staged development to ensure only areas under active development are exposed and to allow for stabilization practices as soon as practicable. Temporary fill must be placed in a manner that will prevent it from being eroded by expected high flows.

e. Activities that require unconfined temporary fill and are authorized for discharge into waters of the U.S. shall consist of material that minimizes effects to water quality.
f. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Materials shall be placed in a location and manner that does not adversely impact surface or subsurface water flow into or out of the wetland. Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric or other appropriate material laid on the pre-construction wetland grade where practicable to minimize impacts and to facilitate restoration to the original grade. Construction mats are excluded from this requirement.
g. Construction debris and deteriorated materials shall not be located in waters of the U.S.
h. Temporary fills, construction mats, and corduroy roads shall be entirely removed as soon as they are no longer needed to construct the authorized activity and the disturbed areas be restored to pre-construction contours and conditions.
i. Construction equipment, such as temporary barges in tidal waters, shall provide clearance above the substrate to avoid grounding onto the substrate during all tides.

23. Restoration of Wetland Areas.
a. Upon completion of construction, all disturbed wetland areas shall be stabilized with a wetland seed mix or plant plugs containing only plant species native to New England, and be appropriate for site conditions, including salinity and frequency of inundation, and shall not contain any species listed in the “Invasive and Other Unacceptable Plant Species” Appendix K of the New England District “Compensatory Mitigation Standard Operating Procedures” found at https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx.
b. The introduction or spread of invasive plant species in disturbed areas shall be prevented and controlled. Equipment shall be thoroughly cleaned before and after project construction to prevent the spread of invasive species. This includes, but is not limited to, tire treads and construction mats.
c. In areas of authorized temporary disturbance, if trees are cut in USACE jurisdiction, they shall be cut at or above ground level and not uprooted in order to prevent disruption of any kind to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.
d. Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

24. Bank Stabilization.
a. Projects involving construction or reconstruction/maintenance of bank stabilization within USACE jurisdiction shall be designed to minimize environmental effects, effects to neighboring properties, scour, conversion of natural shoreline to hard armoring, etc. to the maximum extent practicable.
b. Projects involving the construction of new bank stabilization within USACE jurisdiction shall use bioengineering techniques and natural materials in the project design to the maximum extent practicable. Use of hard structures shall be eliminated or minimized unless the prospective permittee can demonstrate that use of bioengineering techniques is not practicable due to site conditions.
c. Where possible, bank stabilization projects shall optimize the natural function of the shoreline, including self-sustaining stability to attenuate flood flows, fishery, wildlife habitat and water quality protection, while protecting upland infrastructure from storm events that can cause erosion as well as impacts to public and private property.
d. No material shall be placed in excess of the minimum needed for erosion protection.
e. No material shall be placed in a manner that will be eroded by normal or expected high flows (properly anchored native trees and treetops may be used in low energy areas).

f. Native plants appropriate for current site conditions, including salinity, must be used for bioengineering or vegetative bank stabilization.
g. The activity must be properly maintained, which may require repairing it after severe storms or erosion events.

25. Soil Erosion and Sediment Controls.
a. Appropriate soil erosion and sediment controls[1] (hereinafter referred to as "controls") must installed prior to earth disturbance and maintained in effective operating condition during construction. Biodegradable wildlife friendly erosion controls should be used whenever practicable to minimize effects to water quality.
b. Activities in streams (rivers, streams, brooks, etc.) and tidal waters that are capable of producing sedimentation or turbidity should be done during periods of low-flow or no-flow, when the stream or tide is waterward of the work area. Controls may also be used to obtain dry work conditions (e.g., coffer dam, turbidity curtain). The prospective permittee must demonstrate in the project plans where the controls are proposed and how these controls would avoid and/or minimize turbidity or sedimentation.
c. A PCN is required for controls that encroach: i) >25% of the stream width measured from OHW in non-tidal diadromous streams from March 15 to June 30; or ii) >25% of the waterway width measured from MHW in tidal waters from Feb. 1 to June 30, or >50% of the waterway width measured from MHW in tidal waters from July 1 to Jan. 14. This is to protect upstream fish passage. Proponents must also maintain downstream fish passage throughout the project.
d. No dewatering shall occur with direct discharge to waters or wetlands. Excess water in isolated work areas shall be pumped or directed to a sedimentation basin, tank or other dewatering structures in an upland area adequately separated from waters or wetlands. Suspended solids shall be removed prior to discharge back into waters or wetlands from these dewatering structures. All discharge points back into waters and wetlands shall use appropriate energy dissipaters and erosion and sedimentation control BMPs.
e. Temporary controls shall be removed upon completion of work, but not until all exposed soil and other fills, as well as any work waterward of OHW or the HTL, are permanently stabilized at the earliest practicable date. Sediment and debris collected by these devices shall be removed and placed at an upland location in a manner that will prevent its later erosion into a waterway or wetland. Controls may be left in place if they are biodegradable and flows and aquatic life movements are not disrupted.

26. Aquatic Life Movements and Management of Water Flows.
a. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies and wetlands shall be:

i. Suitably spanned, bridged, culverted, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species; and
ii. Properly aligned and constructed to prevent bank erosion or streambed scour both adjacent to and inside the crossing.

[1] Appropriate soil erosion, sediment and turbidity controls include cofferdams, bypass pumping around barriers immediately up and downstream of the work footprint (i.e., dam and pump), installation of sediment control barriers (i.e., silt fence, vegetated filter strips, geotextile silt fences, filter tubes, erosion control mixes, hay bales or other devices) downhill of all exposed areas, stream fords, retention of existing vegetated buffers, application of temporary mulching during construction, phased construction, and permanent seeding and stabilization, etc.

b. To avoid adverse impacts on aquatic organisms, the low flow channel/thalweg shall remain unobstructed during periods of low flow, except when necessary to perform the authorized work.
c. For work in tidal waters, in-stream controls (e.g., cofferdams) should be installed in such a way as to not obstruct fish passage.
d. Riprap and other stream bed materials shall be installed in a manner that avoids organism entrapment in rock voids or water displaced to subterranean flow with crushed stone and riprap.
e. To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity shall not restrict or impede the passage of normal or high flows unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

27. Spawning, Breeding, and Migratory Areas.
a. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized under these GPs.
b. Activities in waters of the U.S. that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
c. The applicant is responsible for obtaining any "take" permits required under the USFWS's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The applicant should contact the appropriate local office of the USFWS to determine if such "take" permits are required for a particular activity.
d. Information on spawning habitat for species managed under the Magnuson-Stevens Fishery Conservation and Management Act (i.e., EFH for spawning adults) can be obtained from NAE Regulatory website, Essential Fish Habitat section, at: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/.
e. Information regarding diadromous fish habitat can be obtained from the following DMF website at: https://www.mass.gov/info-details/massgis-data-diadromous-fish.

28. Vernal Pools.
a. A PCN is required if a discharge of dredged or fill material is proposed within a vernal pool depression that is also a water of the U.S.
b. Vernal pools must be identified on the plans that show aquatic resource delineations.
c. Adverse impacts to vernal pools shall be avoided & minimized to the maximum extent practicable.

29. Invasive Species.
a. The introduction, spread or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or areas adjacent to the project site caused by the site work shall be avoided. Construction mats shall be thoroughly cleaned before reuse to avoid spread of invasive species.
b. Unless otherwise directed by USACE, all applications for PCN non-tidal projects proposing fill in USACE jurisdiction shall include an Invasive Species Control Plan. Additional information can be found at: https://www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species/, https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/.

30. Fills Within 100-Year Floodplains. The activity shall comply with applicable Federal Emergency Management Agency (FEMA) approved, Massachusetts Emergency Management

Agency (MEMA) approved and/or local floodplain management requirements. Applicants should contact FEMA and/or MEMA regarding floodplain management requirements.

31. Stream Work and Crossings & Wetland Crossings.
a. When feasible, all temporary and permanent crossings of waterbodies and wetlands (hereinafter referred to as "crossings") shall conform to the "Massachusetts River and Stream Crossing Standards" located at: https://www.mass.gov/doc/massachusetts-river-and-stream-crossing-standards/download or https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/. Projects that do not conform to these guidelines shall be reviewed under PCN or IP procedures.
b. Crossings shall be suitably culverted, bridged, or otherwise designed to withstand and to prevent the restriction of high flows, to maintain existing low flows, maintain water quality, and not obstruct the movement of aquatic life indigenous to the waterbody beyond the duration of construction.
c. Crossings shall be installed in such a manner as to preserve hydraulic capacity and flow, sediment transport, and organism passage at its present level, between the wetlands on either side of the road. The applicant shall take necessary measures to correct any wetland damage resulting from deficiencies in hydraulic capacity, sediment transport and organism passage.
d. Stream crossings shall utilize a natural mixed grain-size streambed material composition that matches upstream and downstream substrates to create a stable streambed. Substrate should function appropriately during normal and high flows without washing out. If natural streambed material is not utilized, a PCN is required.
e. Activities involving open trench excavation in flowing waters require a PCN. Work should not occur in flowing waters (requires using management techniques such as temporary flume pipes, culverts, cofferdams, etc.). Normal flows should be maintained within the stream boundary's confines when practicable. Projects utilizing these management techniques must meet all applicable terms and conditions of the GP, including the GCs in Section IV.

32. Utility Line Installation and Removal
a. Subsurface utility lines must be installed at a sufficient depth to avoid damage from anchors, dredging, etc., and to prevent exposure from erosion and stream adjustment.
b. When utility lines are installed via horizontal directional drilling, a frac-out contingency plan shall be present on site for the duration of construction. As necessary, the applicant shall immediately contain, control, recover, and remove drilling fluids released into the environment.
c. Abandoned or inactive utility lines must be removed and faulty lines (e.g., leaking hazardous substances, petroleum products, etc.) must be removed or repaired. A written verification from the USACE is required if they are to remain in place, e.g., to protect sensitive areas or ensure safety.
d. Utility lines shall not adversely alter existing hydrology, and trenches cannot be constructed or backfilled in such a manner as to drain waters of the U.S. (e.g., backfilling with extensive gravel layers, creating a French drain effect). In wetland areas, structures such as ditch plugs, cut-off walls, clay blocks, bentonite, or other suitable material shall be used within utility trenches to ensure that the trench through which the utility line is installed does not drain waters of the U.S. including wetlands.
e. Stockpiling of tree debris, to the extent where it has the effect of fill material, shall not occur in waters of the U.S. Tree debris shall be removed from waters of the U.S. and placed in uplands without causing additional disturbance to aquatic resources. Failure to meet this condition could change the bottom elevation of the wetland and be considered a discharge of fill material, and depending on the area of alteration, may require a PCN or IP.

33. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

34. Coral Reefs. Impacts to coral reefs are not authorized under these GPs. Coral reefs consist of the skeletal deposit, usually of calcareous or silicaceous materials, produced by the vital activities of anthozoan polyps or other invertebrate organisms present in growing portions of the reef.

35. Blasting. Blasting in waters of the U.S. associated with work such as dredging, trenching, pile installation, etc. is not authorized under these GPs.

36. Inspections. The permittee shall allow USACE to make periodic inspections at any time deemed necessary to ensure that the work is being or has been performed in accordance with the terms and conditions of this permit. To facilitate these inspections, for activities requiring a PCN, the permittee shall complete and return the Certificate of Compliance when it is provided with a PCN verification letter. For SV-eligible activities, the permittee shall complete and submit the SVN to USACE within 30 days of initiating project construction, at which point, USACE may opt to inspect the activity to verify compliance with the terms and conditions of the GP. Post-construction engineering drawings may be required by USACE for completed work. This includes post-dredging survey drawings for any dredging work.

37. Maintenance. The permittee shall maintain the activity authorized by these GPs in good condition and in conformance with the terms and conditions of this permit. Some maintenance activities may not be subject to federal regulation under Section 404 in accordance with 33 CFR 323.4(a)(2). This condition is not applicable to maintenance of dredging projects. Prospective permittees should contact USACE to inquire about maintenance of dredging projects, and its eligibility under these GPs. Maintenance dredging is subject to the review thresholds in GP #7 as well as any conditions included in a written USACE authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged.

38. Property Rights. Per 33 CFR 320.4(g)(6), these GPs do not convey any property rights, either in real estate or material, or any exclusive privileges, nor do they authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations.

39. Transfer of GP Verifications. When the work authorized by these GPs is still in existence at the time the property is transferred, the terms and conditions of these GPs, including any special conditions, will continue to be binding on the entity or individual who received the GP authorizations, as well as the new owner(s) of the property. If the permittee sells the property associated with a GP authorization, the applicant may transfer the GP authorization to the new owner by submitting a letter to USACE to validate the transfer. A copy of the GP authorization letter must be attached to the letter, and the letter must include the following statement: “The terms and conditions of these general permits, including any special conditions, will continue to be binding on the new owner(s) of the property.” This letter shall be signed by both the seller and new property owner(s).

40. Modification, Suspension, and Revocation. These GPs and any individual authorization issued thereof may be either modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7; and any such action shall not be the basis for any claim for damages against the U.S.

41. Special Conditions. The USACE may impose other special conditions on a project authorized pursuant to these GPs that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special conditions, constitutes a permit violation and may subject the applicant to criminal, civil, or administrative penalties or restoration.

42. False or Incomplete Information. If USACE makes a determination regarding the eligibility of a project under these GPs, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the applicant, the authorization will not be valid, and the U.S. Government may institute appropriate legal proceedings.

43. Abandonment. If the permittee decides to abandon the activity authorized under these GPs, unless such abandonment is merely the transfer of property to a third party, he/she/they may be required to restore the area to the satisfaction of USACE.

44. Enforcement cases. These GPs do not apply to any existing or proposed activity in USACE jurisdiction associated with an on-going USACE or EPA enforcement action, until such time as the enforcement action is resolved or USACE or EPA determines that the activity may proceed independently without compromising the enforcement action.

45. Previously Authorized Activities.

a. Completed projects that received prior authorization from USACE (SV or PCN), shall remain authorized in accordance with the original terms and conditions of those authorizations, including their terms, GCs, and any special conditions provided in a written verification.

b. Activities authorized pursuant to 33 CFR 330.3 (activities occurring before certain dates) are not affected by these GPs.

46. Duration of Authorization.

These GPs expire on June 1, 2028. Activities authorized under these GPs will remain authorized until the GPs expire, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2). Activities authorized under GPs 1-25 that have either commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will have until June 1, 2029 to complete the work. If requested by USACE, the permittee shall furnish documentation that demonstrates the project was under construction or under contract to commence by June 1, 2028. If work is not completed before June 1, 2029, the permittee must contact USACE. The USACE may issue a new authorization provided the project meets the terms and conditions of the MA GPs in effect at the time. Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after their expiration date.

SECTION V: MITIGATION STANDARDS

1. Mitigation Types

For all activities, applicants must (a) demonstrate how the project has been designed to avoid or minimize impacts to aquatic resources; and (b) describe measures taken to avoid or minimize impacts to aquatic resources through construction techniques and/or site access. Please see https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/ for assistance with preparing mitigation in accordance with the 2008 Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 CFR 332.3), hereafter referred to as "2008 Mitigation Rule."

Avoidance - Avoidance of impacts (direct and indirect) to aquatic resources means that project activities would not result in the placement of fill material or installation of a structure that could impact the resource area. Avoidance can include, but is not limited to, designing the project to avoid impacts to all or a portion of the aquatic resource areas.

Minimization - Minimization of impacts (direct and indirect) to aquatic resources means that measures are taken to ensure the amount and duration of impacts are limited to the maximum extent practicable. There are many minimization measures that could be implemented, prior to, during, or after the proposed activity, to ensure impacts are minimized. Examples include, but are not limited to:

- Permanent preservation of avoided aquatic features and buffer zone, in perpetuity. In these cases, the preserved area would be under a conservation easement and managed by conservation oriented third-party manager.
- Utilization of best management practices (BMPs) to ensure impacts are limited, and do not result in adverse impacts to the integrity and long-term functions of preserved/avoided features.

Compensatory Mitigation - Compensatory mitigation is generally required for PCN activities in which the impacts to the aquatic resources have been avoided and minimized to the maximum extent practicable but would still result in unavoidable adverse effects to the environment that are considered more than minimal or are contrary to the public interest. *Whatever the case may be, compensatory mitigation is no substitute for avoidance and minimization.*

2. Thresholds for Compensatory Mitigation

The basic objective of compensatory mitigation in the USACE Regulatory Program is to offset environmental losses resulting from unavoidable impacts to waters of the U.S. authorized by Department of the Army permits. **The following compensatory mitigation thresholds apply to all PCN activities that result in loss[1] of the resource area types listed below. Activities[2] in waters of the U.S. associated with the restoration, enhancement, and establishment of tidal and non-tidal aquatic resources are not considered loss and are not subject to the thresholds below.** Thresholds for different resource areas may not be combined to exceed 5,000 SF of total loss of all waters. The USACE will continue to evaluate projects on a case-by-case basis, and may in some cases require compensatory mitigation below these thresholds (e.g. minor impacts that add to a cumulative loss).

[1] See definition of loss in Section VII.
[2] These activities must result in net increases in aquatic resource functions and services to be exempted from the thresholds above.

Compensatory Mitigation Thresholds in Massachusetts		
Resource Area	**Non-Tidal Threshold**	**Tidal Threshold**
Stream	200 LF	200 LF
Bank Stabilization	500 LF	500 LF
Open Water	Project Dependent	Project Dependent
Wetland	5,000 SF	500 SF
Vernal Pool	All	N/A
SAV	Project dependent	25 SF
Mudflat	N/A	1,000 SF
Intertidal	N/A	1,000 SF

These thresholds can be utilized to determine at what point compensatory mitigation is required but are not used to determine how much mitigation may be needed to offset impacts to resources. Per the 2008 Mitigation Rule (33 CFR 332.3(f)(1)) "the amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases where appropriate functional or condition assessment methods or other suitable metrics are available, these methods should be used where practicable to determine how much compensatory mitigation is required. If a functional or condition assessment or other suitable metric is not used, a minimum one-to-one acreage or linear foot compensation ratios must be used."

3. Compensatory Mitigation Hierarchy

Compensatory mitigation should follow the hierarchy as outlined in 33 CFR 332.3(b)(2-6) or current regulation. This hierarchy in order of preference includes: (1) Mitigation Bank credits, (2) In-Lieu Fee program credits, (3) permittee-responsible mitigation under a watershed approach, (4) permittee-responsible mitigation through on-site and in-kind mitigation, and (5) permittee-responsible mitigation through off-site and/or out-of-kind mitigation. If the proposed mitigation deviates from this mitigation hierarchy, the applicant **must** justify in writing why the proposed mitigation is environmentally preferable to the preferred method of compensatory mitigation (See 2008 Mitigation Rule). **In order for your application to be considered complete, you must provide a statement that discusses how your project will compensate for the loss or impact to aquatic resources.** If you are proposing permittee responsible mitigation, the 12 components of a mitigation plan (33 CFR 332.4(c)(2-14) must be addressed for your application to be considered complete. Prospective applicants are encouraged to contact USACE with questions at any time. Addressing the 12 components of a mitigation plan is commensurate with the amount of compensatory mitigation required, and USACE can assist prospective applicants with the level of information needed to satisfy each component.

For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee.

4. In-Lieu Fee (ILF)

The purchase of credits from the Massachusetts In-Lieu Fee Program (MA ILFP) is the ***preferred*** method of compensatory mitigation in Massachusetts since, as of the issuance date of this GP, there are no mitigation banks available in Massachusetts. The applicant shall develop a mitigation plan that addresses the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

The MA ILFP is administered by the Massachusetts Department of Fish & Game (DFG) in accordance with the 2008 Mitigation Rule at 33 CFR 332. The Mitigation Rule governs in-lieu fee compensatory mitigation associated with USACE permits under §404 of the Clean Water Act and/or §9 or §10 of the Rivers and Harbors Act of 1899.

MA ILFP Website: https://www.mass.gov/in-lieu-fee-program

Acceptance of an ILF payment into the ILFP established by the 2014 MA ILFP Instrument (link below) is an acknowledgement by DFG that it assumes all legal responsibility for satisfying the mitigation requirements of the USACE (i.e., the implementation, performance, and long-term management and monitoring of the compensatory mitigation project(s) approved under this Instrument and subsequent Compensatory Mitigation Plans). This transfer of legal responsibility is established by: 1) the approval of this In-Lieu Fee Instrument; 2) receipt by the district engineer of a Notice of Credit Sale and Transfer of Legal Responsibility to DFG that is signed by the DFG and the permittee and dated; and 3) the transfer of fees from the permittee to DFG.

MA ILFP Fact Sheet: https://www.mass.gov/files/documents/2017/01/sj/ilfp-fact-sheet-ma-ilfp-fees.pdf

MA ILFP Instrument: https://www.mass.gov/files/documents/2016/08/nd/ilfp-final-instrument-dfg.pdf

5. Permittee-Responsible

The USACE may determine that the proposed permittee-responsible compensatory mitigation is appropriate on a case-by-case basis. As described in the Compensatory Mitigation Hierarchy section above, applicants must justify in writing why the proposed mitigation is environmentally preferable to the purchase of ILF credits. Applicants are encouraged to contact the USACE prior to submission of a permit application to seek further guidance regarding USACE mitigation requirements.

Applicants will demonstrate their proposed compensatory mitigation in writing by addressing the 12 components of a mitigation plan (33 CFR 332.4(c)(2-14). *Please note that all elements must be addressed, or the permit application will be deemed incomplete.* In certain circumstances, the district engineer may determine that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). Guidance on how to address these components can be found on the New England District Mitigation webpage: https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/

Performance standards will be used to measure the successfulness of the mitigation project. A successful mitigation project is one that is self-sustaining. For a mitigation project that will restore, enhance, or create wetlands, proper performance standards must address hydrology, hydric soils, and hydrophytic vegetation. The mitigation proposal must include an explanation of quantitative methods used to measure the success of performance standards (i.e., percent cover may be measured using vegetation plots, hydrology may be measured using data loggers, soil cores may be taken and evaluated for hydric soil indicators).

Monitoring methods should include quantitative sampling methods following established, scientific protocols. Sampling documentation, as part of monitoring reports, should include maps and coordinates (also shapefiles, if available) showing locations of sampling points, transects, quadrats, etc. In addition, permanent photo stations should be established coincident with sampling locations.

SECTION VI: FEDERAL & STATE AGENCY CONTACT INFORMATION & ORGANIZATIONAL WEBSITES

Federal Agencies

U.S. Army Corps of Engineers
Regulatory Division
696 Virginia Road
Concord, Massachusetts 01742-2751
(978) 318-8338 (phone); (978) 318-8303 (fax)
www.nae.usace.army.mil/missions/regulatory

National Marine Fisheries Service
55 Great Republic Drive
Gloucester, Massachusetts 01930
(978) 281-9300 (phone)
(*Federal endangered species & EFH)*

National Park Service
15 State Street
Boston, Massachusetts 02109
(617) 223-5191 (phone)
(*Wild and Scenic Rivers*)

Chief, Risk Analysis Branch
FEMA Region 1
99 High Street, 6th Floor
U.S. Department of Homeland Security
Boston, Massachusetts 02110
(617) 956-7576 (phone)

U.S. Environmental Protection Agency
5 Post Office Square
Suite 100 (OEP06–3)
Boston, Massachusetts 02109-3912
(617) 918-1692 (phone)

U.S. Army Corps of Engineers
Navigation Division – Section 408
696 Virginia Road
Concord, Massachusetts 01742-2751
See link below for contact information:
https://www.nae.usace.army.mil/Missions/Section-408/

U.S. Fish & Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301
(603) 223-2541 (phone)
(Federal endangered species)

Bureau of Ocean and Energy Management
1849 C Street, NW
Washington D.C. 20240
202-208-6474 (phone)
(*Offshore Wind Facilities)*

Commander (dpb)
First Coast Guard District
Battery Building
One South Street
New York, New York 10004-1466
(212) 514-4331 (phone); (212) 514-4337 (fax)
(*Bridge permits*)

State Agencies in Massachusetts

Massachusetts Department of Environmental Protection (MassDEP)	
DEP Division of Wetlands & Waterways	100 Cambridge Street, Suite 900 Boston, Massachusetts 02114 (617) 292-5695
Northeast Region	150 Presidential Way, Suite 300 Woburn, Massachusetts 01801 (978) 694-3200
Southeast Region	20 Riverside Drive, Route 105 Lakeville, Massachusetts 02347 (508) 946-2800
Central Region	8 New Bond Street Worcester, Massachusetts 01606 (508) 792-7650
Western Region	436 Dwight Street Springfield, Massachusetts 01103 (413) 784-1100

Massachusetts Office of Coastal Zone Management (CZM) Emails may be sent to: czm@mass.gov	
MA Office of Coastal Zone Management	100 Cambridge Street, Suite 900 Boston, Massachusetts 02114 (617) 626-1200
North Shore Region	2 State Fish Pier Gloucester, Massachusetts 01930 (978) 281-3972
South Shore Region	175 Edward Foster Road Scituate, Massachusetts 02066
Cape Cod and Islands Region	3195 Main Street, P.O. Box 220 Barnstable, MA 02630
South Coastal Region	81-B County Road, Suite E Mattapoisett, MA 02739

Massachusetts Historical Commission (MHC)	
Office Location:	220 Morrisey Boulevard Boston, Massachusetts 02125 (617) 727-8470

Massachusetts Board of Underwater Archaeological Resources (BUAR) Emails may be sent to: david.s.robinson@mass.gov	
Office Location:	100 Cambridge Street, Suite 900 Boston, Massachusetts 02114 (617) 626-1014

SECTION VII: Definitions & Acronyms

Artificial or Living Reef: A structure which is constructed or placed in waters for the purpose of enhancing fishery resources and commercial and recreational fishing opportunities.
Attendant Features: Occurring with or as a result of; accompanying.
Biodegradable: A material that decomposes into elements found in nature within a reasonably short period of time and will not leave a residue of plastic or a petroleum derivative in the environment after degradation. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation. Examples of biodegradable materials include jute, sisal, cotton, straw, burlap, coconut husk fiber (coir) or excelsior. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation. Photodegradable, UV degradable or Oxo-(bio)degradable plastics are not considered biodegradable under this GP.
Boating facilities: These provide, rent or sell mooring space, such as marinas, yacht clubs, boat yards, dockominiums, municipal facilities, land/home owners, etc. Not classified as boating facilities are piers shared between two abutting properties or municipal mooring fields that charge an equitable user fee based on the actual costs incurred.
Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved. Must comply with the applicable provisions of 33 CFR 332. See also the New England District Compensatory Mitigation Guidance at http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx.
Construction mats: Constructions, swamp and timber mats (herein referred to as “construction mats”) are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be construction mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like construction mats, they are considered as fill whether they are installed temporarily or permanently.
Cumulative Impacts: The impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.1). Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems. See 40 CFR 230.11(g).
Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.
Dredging:
Improvement Dredging: For the purposes of these GPs, this is dredging deeper than previously authorized by the USACE and dredged under that authorization.
Maintenance Dredging: For the purposes of these GPs, this is dredging from an area previously authorized by the USACE and dredged under that authorization. The USACE may require proof of authorization and dredging. Maintenance dredging typically refers to the routine removal of accumulated sediment to maintain the design depths of serviceable navigation channels, harbors, marinas, boat launches and port facilities. Maintenance dredging is conducted for navigational purposes and does not include any expansion of the previously dredged area. The USACE may

review a maintenance dredging activity as new dredging if sufficient time has elapsed to allow for the colonization of SAS, shellfish, etc.

New Dredging: For the purposes of these GPs, this is a) first time the USACE authorizes dredging of a particular location or b) dredging has not occurred for an extended period of time, and this has allowed for aquatic resources (i.e., eelgrass, shellfish, etc.) to redevelop in the area.

Dredged material & discharge of dredged material: These are defined at 33 CFR 323.2(c) and (d). The term dredged material means material that is excavated or dredged from waters of the U.S.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: A stream with flowing water only during, and for a short duration, after precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Erosion Controls: Appropriate soil erosion, sediment and turbidity controls include cofferdams, bypass pumping around barriers immediately up and downstream of the work footprint (i.e., dam and pump), installation of sediment control barriers (i.e., silt fence, vegetated filter strips, geotextile silt fences, filter tubes, erosion control mixes, hay bales or other devices) downhill of all exposed areas, stream fords, retention of existing vegetated buffers, application of temporary mulching during construction, phased construction, and permanent seeding and stabilization, etc.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area (33 CFR 332.2).

Expansions: Work that increases the footprint of fill, structures, depth of basin or drainage features, or floats, or slip capacity.

Essential Fish Habitat (EFH): The Federal Magnuson-Stevens Fishery Management and Conservation Act broadly defines EFH to include those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. See www.greateratlantic.fisheries.noaa.gov/habitat for more information.

Fill material & discharge of fill material: Material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S. Fill material does not include any pollutant discharged into the water primarily to dispose of waste. These are defined at 33 CFR 323.2 (e) & (f).

Federal navigation projects (FNPs): These areas are maintained by the USACE; authorized, constructed and maintained on the premise that they will be accessible and available to all on equal terms; and comprised of USACE Federal anchorages, Federal channels and Federal turning basins. The buffer zone is equal to three times the authorized depth of a FNP. The following are FNPs in MA and more information, including the limits, is provided at www.nae.usace.army.mil/missions/navigation >> Navigation Projects:

- Andrews River, Harwich, MA
- Aunt Lydia's Cove
- Beverly Harbor
- Boston Harbor
- Buttermilk Bay Channel
- Canapitsit Channel
- Cape Cod Canal
- Chatham Harbor
- Cohasset Harbor
- Cross Rip Shoals, Nantucket Sound
- Cuttyhunk Harbor
- Dorchester Bay and Neponset River
- Duxbury Harbor
- Edgartown Harbor
- Essex River
- Fall River Harbor
- Falmouth Harbor
- Gloucester Harbor and Annisquam River
- Green Harbor
- Hingham Harbor
- Hyannis Harbor
- Ipswich River
- Island End River (Chelsea, MA)
- Kingston Harbor
- Lagoon Pond
- Little Harbor Woods Hole

Lynn Harbor
Malden River
Menemsha Creek
Merrimack River
Mystic River
Nantucket Harbor of Refuge
New Bedford and Fairhaven Harbor
Newburyport Harbor
Oak Bluffs Harbor
Pigeon Cove Harbor
Plymouth Harbor
Pollock Rip Shoals, Nantucket Sound
Provincetown Harbor
Red Brook Harbor
Rockport Harbor
Salem Harbor
Sandy Bay Harbor of Refuge
Saugus River
Scituate Harbor
Sesuit Harbor
Taunton River
Vineyard Haven Harbor
Wareham Harbor
Wellfleet Harbor
Westport River and Harbor
Weymouth Back River
Weymouth Fore and Town Rivers
Winthrop Harbor
Woods Hole Channel

Flume: An open artificial water channel, in the form of a gravity chute, which leads water from a diversion dam or weir alongside a natural flow. A flume can be used to measure the rate of flow.
FNP buffer zone: The buffer zone of a USACE Federal Navigation Project (FNP) is equal to three times the authorized depth of the FNP.
Frac out: During horizontal directional drilling (HDD) operations, drilling fluid travels up the borehole into a pit. When the borehole becomes obstructed or the pressure becomes too great inside the borehole, the ground fractures and fluid escapes to the surface and may affect surface waters.
Ground disturbance: Any activity that compacts, relocates, overturns, removes, mixes, or otherwise disturbs the ground, including under water. Ground disturbance can be caused by the use of hand tools (shovels, pick axe, posthole digger, etc.), heavy equipment (excavators, backhoes, bulldozers, dredgers, trenching and earthmoving equipment, etc.), and heavy trucks (large four wheel drive trucks, dump trucks and tractor trailers, etc.). Trenching, bulldozing, dredging, excavating, scraping, and plowing are typical examples of ground disturbance activities.
Height:width ratio: The height of structures shall at all points be equal to or exceed the width of the deck. For the purpose of this definition, height shall be measured from the marsh substrate to the bottom of the longitudinal support beam.
High Tide Line (HTL): The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides 58 that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds. (33 CFR 328). Refer to the highest predicted tide for the current year at the nearest NOAA tide gage. https://tidesandcurrents.noaa.gov/map/index.html
Historic Property: Any prehistoric or historic site (including archaeological sites), district, building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).
Impacts:
Direct Impacts: Effects that are caused by the activity and occur at the same time and place (40 CFR 1508.7).
Indirect impacts: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.
Secondary impacts: Effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.

Information about secondary effects on aquatic ecosystems shall be considered prior to the time final section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are: aquatic areas drained, flooded, fragmented; fluctuating water levels in an impoundment and downstream associated with the operation of a dam; septic tank leaching and surface runoff from residential or commercial developments on fill; and leachate and runoff from a sanitary landfill located in waters of the U.S. See 40 CFR 230.11(h).

Incidental Fallback: Incidental fallback is the redeposit of small volumes of dredged material that is incidental to excavation activity in waters of the U.S. when such material falls back to substantially the same place as the initial removal (33 CFR 323.2(d)(2)(iii)).

In the dry: Work that is done under dry conditions, e.g., work behind cofferdams or when the stream or tide is waterward of the work.

Independent utility: A test to determine what constitutes a single and complete non-linear project in the USACE Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Individual permit: A Department of the Army authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR 322, or a specific project involving the proposed discharge(s) in accordance with the procedures of 33 CFR 323, and in accordance with the procedures of 33 CFR 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR 320.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Intertidal: The area in between mean low water and the high tide line.

Living reef: See the definition of “artificial or living reef.”

Living shoreline: A term used to describe a low-impact approach with a substantial biological component to shoreline protection and restoration along coastal shores, riparian zones, lacustrine fringe wetlands, or oyster or mussel reef structures. This approach integrates natural features to restore, enhance, maintain, or create habitat, functions, and processes while also functioning to mitigate flooding or shoreline erosion. Living shorelines may stabilize banks and shores with small fetch and gentle slopes that are subject to low-to mid-energy waves. A living shoreline has a footprint that is made up mostly of native material. It incorporates vegetation or other living, natural “soft” elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) for added protection and stability. Living shorelines should maintain the natural continuity of the land-water interface and retain or enhance shoreline ecological processes.

Loss of waters of the United States: Waters of the U.S. that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the U.S. is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for a GP; it is not a net threshold that is calculated after considering compensatory mitigation that maybe used to offset losses of aquatic functions and services. Waters of the U.S. temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the U.S. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the U.S.

Maintenance: The repair, rehabilitation, or in-kind replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3 – "Activities occurring before certain dates," provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Maintenance includes minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make repair, rehabilitation, or replacement are authorized. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Maintenance Exemption: In accordance with 33 CFR 323.4(a)(2), any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404 of the CWA: "Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design."

Mean high water: Line on the shore reached by the plane of the average high water. Where precise determination of the actual location of the line becomes necessary, it must be established by survey with reference to the available tidal datum, preferably averaged over a period of 18.6 years. Less precise methods, such as observation of the "apparent shoreline" which is determined by reference to physical markings, lines of vegetation, or changes in type of vegetation, may be used only where an estimate is needed of the line reached by the mean high water.

Mechanized land clearing: Land clearing activities using mechanized equipment such as backhoes or bulldozers with sheer blades, rakes or discs constitute point source discharges and are subject to section 404 jurisdiction when they take place in wetlands or waters of the U.S (Regulatory Guidance Letter 90-05).

Metallic mineral: Any ore or material to be excavated from the natural deposits on or in the earth for its metallic mineral content to be used for commercial or industrial purposes. "Metallic mineral" does not include thorium or uranium.

Minor deviations: Deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards, which are necessary to make repair, rehabilitation, or replacement are permitted, provided the adverse environmental effects resulting from such repair, rehabilitation, or replacement are minimal.

Natural Rocky Habitats: Intertidal and subtidal substrates of pebble-gravel, cobble, boulder, or rock ledge and outcrops. Manufactured stone (e.g., cur or engineered riprap) is not considered a natural rocky habitat. Natural rocky habitats are either found as pavement (consolidated pebble-gravel, cobble, or boulder areas) or as a mixture with fines (i.e., clay and sand) and other substrates. Rocky habitats as EFH are defined as follows: (1) All pebble-gravel, cobble, or boulder pavements; (2) Pebble-gravel mixed with fines: mixed substrate of pebble-gravel and fines where pebble-gravel is an evident component of the substrate (either through visual observation or within sediment samples). Sediment samples with a content of 10% or more of pebble-gravel in the top layer (6-12 inches) should be delineated; (3) Scattered cobble, scattered boulder, scattered cobble/boulder: mixed substate of cobble and/or boulder and other substrates. The aerial extent of cobbles and/or boulders should be delineated; and (4) All rock ledge outcrops: area should be delineated along the edge of the ledge/outcrop (as defined by NMFS Habitat and Ecosystems Services Branch, Gloucester, MA).

Navigable waters or Navigable waters of the U.S.: These waters are subject to section 10 of the Rivers and Harbors Act of 1899 and are defined as those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce (33 CFR Part 329). Work or structures in navigable

waters require permits pursuant to §9 and §10 of the Rivers and Harbors Act of 1899. Also see the definition of "waters of the U.S." below.
Note: Currently the following non-tidal waters have been determined to be navigable waters of the U.S. subject to permit jurisdiction in Massachusetts: Merrimack River, Connecticut River, and Charles River to the Watertown Dam.
Nearshore disposal: This is defined in the USACE Coastal Engineering Manual as "(1) In beach terminology an indefinite zone extending seaward from the shoreline well beyond the breaker zone. (2) The zone which extends from the swash zone to the position marking the start of the offshore zone, typically at water depths of the order of 20m." A nearshore berm is an artificial berm built in shallow water using dredged material. Often, the berm is intended to renourish the adjacent and downdrift shore over time under the influence of waves and currents.
Non-regulated activity: Only structures or fills that were previously authorized and are in compliance with the terms and condition of the original authorization can be maintained as a non-regulated activity under 33 CFR 323.4(a)(2). Minor deviations from the previously authorized footprint do not qualify as a non-regulated activity and require new authorization from the USACE. The state's maintenance provisions may differ from the USACE and a project may require reporting and written authorization from the state.
Non-tidal wetlands: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the HTL (*i.e.,* spring HTL). Also see the definition of "Waters of the U.S." below.
Oil or natural gas pipeline: Any pipe or pipeline for the transportation of any form of oil or natural gas, including products derived from oil or natural gas, such as gasoline, jet fuel, diesel fuel. heating oil, petrochemical feedstocks, waxes, lubricating oils, and asphalt.
Ordinary High Water Mark (OHWM): A line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas. See 33 CFR 328.3(e).
Overall project: The overall project, for purposes of these GPs, includes all regulated activities that are reasonably related and necessary to accomplish the project purpose. Also see the definition of "single and complete linear project."
Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.
Permanent impacts: Permanent impacts means waters of the U.S. that are permanently affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent impacts include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody.
Preconstruction notification (PCN): A request submitted by the applicant to the USACE for confirmation that a particular activity is authorized by these GPs. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Preconstruction notification may be required by the terms and conditions of these GPs. A PCN may be voluntarily submitted in cases where PCN is not required and the applicant wants confirmation that the activity is authorized under these GPs.
Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions (33 CFR 332.2).
Real estate subdivision: Includes circumstances where a landowner or developer divides a tract of land into smaller parcels for the purpose of selling, conveying, transferring, leasing, or

developing said parcels. This would include the entire area of a residential, commercial or other real estate subdivision, including all parcels and parts thereof

Reconfiguration zone: A USACE authorized area in which permittees may rearrange pile-supported structures and floats without additional authorizations. A reconfiguration zone does not grant exclusive privileges to an area or an increase in structure or float area.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in again in aquatic resource area and functions (33 CFR 332.2).

Reference Site: Reference sites - Compensatory restoration, rehabilitation, and creation mitigation projects should seek to duplicate the features of reference aquatic resources or enhance connectivity with adjacent natural upland and aquatic resource landscape elements. Performance standards related to reference sites are encouraged. Mitigation project sites must be selected based on their ability to be, and continue to be, resistant to disturbance from the surrounding landscape, by locating them adjacent to refuges, buffers, green spaces, and other preserved natural elements of the landscape. In general, aquatic resource mitigation projects must be designed to be self-sustaining, natural systems within the landscape and climate in which they are located, with little or no ongoing maintenance and/or hydrologic manipulation.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area (33 CFR 332.2).

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation (33 CFR 332.2).

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Sedimentation: Sedimentation is defined as the process of deposition of a solid material from a state of suspension. Deposited sediments may accumulate and have temporal impacts to aquatic resource areas. See secondary effects definition above. For the purposes of this document, “greater than minimal sedimentation” is generally not considered to occur when using proper erosion controls (GC 25) or when sedimentation is considered “de minimis” 33 CFR 323.2(d)(5).

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/ developer or partnership or other association of owners/developers that includes all crossings of a single water of the U.S. (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for the purposes of these GPs. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete

non-linear project must have independent utility (see the definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in a GP authorization.

Special aquatic sites (SAS): These include inland and saltmarsh wetlands, mud flats, vegetated shallows, sanctuaries and refuges, coral reefs, and riffle and pool complexes. These are defined at 40 CFR 230.3 and listed in 40 CFR 230 Subpart E.

Streambed: The stream substrate between the OHW marks on each side. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the streambed, but outside of the OHW marks, are not considered part of the streambed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the U.S.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Temporal loss: The time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site(s) (33 CFR 332.2).

Temporary impacts: Temporary impacts include, but are not limited to, jurisdictional waters that are temporarily filled, flooded, excavated, or drained because of the regulated activity. Impacts are considered temporary when they are removed immediately upon completion of the activity. Note: An impact is considered temporary when the aquatic resource is restored to pre-project conditions, but effects to archaeological and/or cultural resources may be permanent in duration.

Tidal wetlands: A wetland that is subject to the ebb and flow of the tide. See the definition of “Waters of the U.S.” below.

Tide gates: Structures such as duckbills, flap gates, manual and self-regulating tide gates, etc. that regulate or prevent upstream tidal flows.

Turbidity: A measure of the level of particles such as sediment, plankton, or organic by-products, in a body of water. As the turbidity of water increases, it becomes denser and less clear due to a higher concentration of these light-blocking particles. Suspended solids are more likely to carry toxic chemicals, and can also negatively affect aquatic organisms, water temperature, and dissolved oxygen levels.

Utility line: Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose that is not oil, natural gas, or petrochemicals. A utility line also includes any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term ‘utility line’ does not include activities that drain a water of the U.S., such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

Vegetated shallows: Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass *(Zostera marina)* and widgeon grass (*Rupia maritima*) in marine systems (does not include salt marsh) as well as a number of freshwater species in rivers and lakes. These are a type of SAS defined at 40 CFR 230.43. Vegetated shallows are commonly referred to as submerged aquatic vegetation or SAV. Vegetated shallow survey guidance is located at www.nae.usace.army.mil/missions/regulatory /jurisdiction-and-wetlands. Maps of vegetated shallows in Massachusetts are located at www.nae.usace.army.mil/missions/regulatory/state-general-permits/massachusetts-general-permit.

Vernal pools: For the purposes of these GPs, vernal pools are depressional wetland basins that typically dry up in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In

most years, vernal pools support one or more of the following obligate indicator species: wood frog, spotted salamander, blue-spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish.

Water diversions: Water diversions are activities such as bypass pumping (e.g., "dam and pump") or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions.

Waters of the United States (U.S.) These waterbodies are the waters where permits are required for the discharge of dredged or fill material pursuant to §404 of the CWA. These waters include but are not limited to navigable waters of the U.S. and tidal wetlands and include many non-tidal wetlands and other waterbodies. See definitions for navigable waters of the U.S., tidal wetlands, waterbody, and non-tidal wetlands. (33 CFR 328)

Waterbody: Examples of "waterbodies" include oceans, coastal waters, rivers, streams, ditches, lakes, ponds, and wetlands. If a wetland is adjacent to a waterbody determined to be a water of the U.S., that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

Weir: A barrier across a river designed to alter the flow characteristics. In most cases, weirs take the form of a barrier, smaller than most conventional dams, across a river that causes water to pool behind the structure and allows water to flow over the top. Weirs are commonly used to alter the flow regime of a river, prevent flooding, measure discharge and help render a river navigable.

Wetland: Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. The Corps of Engineers Wetlands Delineation Manual in conjunction with the associated regional supplement should be used to determine if a wetland is present and delineate wetland boundaries.

Acronyms

BMPs	Best Management Practices
BUAR	Massachusetts Board of Underwater Archaeological Resources
CWA	Clean Water Act
CZM	Coastal Zone Management
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
EFH	Essential Fish Habitat
FNP	Federal Navigation Project
GC	General Condition
GP	General Permit
HTL	High Tide Line
IP	Individual Permit
LID	Low impact development
MassDEP	Massachusetts Department of Environmental Protection
MA DMF	Massachusetts Division of Marine Fisheries
MHC	Massachusetts Historical Commission
MHW	Mean High Water
MLLW	Mean Lower Low Water
MLW	Mean Low Water
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
OHW	Ordinary High Water Mark
PCN	Preconstruction Notification
SAS	Special Aquatic Sites
SF	Square Feet
SV	Self-Verification
SHPO	State Historic Preservation Officer
THPO	Tribal Historic Preservation Officer
USFWS	U.S. Fish and Wildlife Service
USCG	U.S. Coast Guard
USFS	U.S. Forest Service
USGS	U.S. Geological Service
WQC	Water Quality Certification

Appendix A: Guidance for NHPA Section 106 Compliance in Massachusetts

1. Purpose & Applicability

Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA) (54 U.S.C § 306108), requires Federal agencies to take into account the effects of their undertakings on Historic Properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. Therefore, in order for an activity to be eligible for authorization under the 2023 Massachusetts General Permit, the USACE must consider the effect the activity may have on historic properties. Historic properties may include, but are not limited to, historic districts, archaeological districts, sites, buildings, structures, objects, sacred sites, traditional cultural places, and traditional cultural landscapes that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP).

This guidance applies to projects that require authorization under Section 404 of the Clean Water Act (33 U.S.C. § 1344) and/or Section 10 of the Rivers and Harbors Act (33 U.S.C. §403) and will assist applicants when evaluating and documenting the presence of historic properties within or near their project site(s). The prospective applicant will evaluate their proposed project using the criteria below to determine if their project has the potential to affect historic properties and if so, whether or not historic properties are present or are likely to be present. All activities authorized under these GPs shall follow the terms outlined in General Condition 14: Historic Properties and General Condition 6: Tribal Rights & Burial Sites. Prospective applicants shall complete their due diligence according to the procedures below for their application to be deemed complete.

2. No Potential to Affect Historic Properties

Certain activities do not have the potential to cause effects on historic properties, assuming such historic properties were present, based on the nature of the activity and site-specific conditions. Therefore, these activities **do not** require historic property identification efforts or notification of the SHPO, THPOs, and/or BUAR under Section 106. The USACE has determined the following activities within the stated parameters have no potential to affect historic properties:

General Permit	Activity Parameters
1	Temporary buoys, markers and similar structures that are placed during winter events on ice and removed before spring thaw.
2	Repair or rehabilitation of structures that are less than 45 years in age. Any temporary structures or fills or work necessary to complete repairs or rehabilitation must not result in any ground disturbance.
3	Maintenance and replacement of moorings that are less than 45 years in age.
6	Maintenance, repair, replacement, or removal of utility lines, oil or natural gas pipelines, outfall or intake structures, and/or appurtenant features that are less than 45 years in age when all access, staging, and ground disturbance is strictly limited to previously disturbed areas (including any previous ground disturbance). Replacement must be in kind or smaller in size. Installation of tide gates on outfall structures that are less than 45 years in age.
7	Maintenance dredging of previously dredged areas where dredging does not extend beyond the original bottom elevations.

	Disposal of dredged material at an existing established and USACE-approved confined aquatic disposal cell. Beach nourishment in ongoing existing nourishment areas.
11	Fish and wildlife harvesting and attraction devices and activities.
13	Cleanup of hazardous and toxic waste materials, including contaminated sediments, that are less than 45 years in age.
16	Removal of land-based and water-based renewable energy generation facilities and hydropower projects that are less than 45 years in age.
18	Installation of buoys, floats, racks, trays, nets, lines, tubes, containers, and other structures for previously authorized by the USACE and ongoing aquaculture activities. Discharges of dredged or fill material into tidal or non-tidal waters necessary for shellfish seeding, rearing, cultivating, transplanting, and harvesting activities for previously authorized and ongoing aquaculture activities.
20	Maintenance activities for existing living shorelines excluding maintenance activities that require new ground disturbance such as excavation or re-sloping of the bank/shoreline.
22	Reshaping or maintenance of existing drainage ditches less than 45 years in age excluding ditch enlargement.
23	Placement of temporary and removable linear transportation and wetland/stream crossings that have no ground disturbance prior to placement, during placement, and during removal (i.e., placed on the surface and subsequently removed within one year of placement).
24	Placement of temporary and removable crossings and cofferdams that have no ground disturbance prior to placement, during placement, and during removal (i.e., placed on the surface and subsequently removed within one year of placement).
25	Emergency repair of existing structures and/or fills less than 45 years in age.

3. Historic Property Identification

If the activity does not fit under the criteria above, the following historic property identification efforts must be completed to demonstrate compliance with Section 106 of the NHPA. This includes documenting previously identified and unidentified historic properties in the project area.

a. Previously Identified Historic Properties: The prospective applicant shall document if previously identified historic properties are present on or adjacent to the project site by notifying the Massachusetts Historical Commission (MHC) and the Massachusetts Board of Underwater Archaeological Resources (BUAR), as appropriate, of the proposed project. The MHC and BUAR will check their records for the presence of any previously identified historic properties. The following outlines how prospective applicants should notify the MHC and BUAR.

i. The prospective applicant will notify the SHPO and BUAR to identify any previously recorded cultural resources. Applicants shall mail a completed Project Notification Form[18], project narrative, location (coordinates), plans, soil maps, and information on known cultural resources to the MHC. The MHC does not accept submissions via email. Applicants shall email or mail this information to the BUAR when the activity is located in lakes, ponds, rivers, and/or navigable waters in MA. Emailed file attachments should be <10MB. Any files >10MB shall be delivered via a file exchange system or the hard copy documents shall be mailed. Preferred contact information is listed below.

ii. **When sending this information, applicants must also document proof of receipt OR proof the information was delivered.** Proof of receipt constitutes a certified mail receipt, read email receipt, or other mail/email/online tracking services that document the information has reached the intended recipient(s). Proof the information was delivered constitutes a certificate of mailing, email delivery receipt, or other mail/email/online services that document the information was sent at a particular time. When using proof of delivery such (e.g., certificate of mailing), applicants should add 5 days to the 30-day notification period so the mail has time to reach its intended recipient. When using proof of receipt, the applicant may begin the 30-day notification period from the date received by the intended recipient.

iii. When mailing or emailing the application materials, applicants should include the following statement: "Please send responses to this notification directly to the USACE via email: cenae-r-ma@usace.army.mil or address regular mail responses to: Regulatory Division, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751." Email responses to the USACE are strongly preferred. The SHPO and BUAR will contact the USACE and cc the applicant(s) within 30 days of receiving the notification if their records indicate that historic properties are located in the project vicinity, and if additional review and/or surveys are recommended to ensure NHPA compliance. If the SHPO and/or BUAR do not respond within 30 days of receiving the notification, is it presumed that no known historic properties are present.

b. Previously Unidentified Historic Properties: The prospective applicant shall evaluate the project site and determine the sensitivity for the presence of historic properties if the project site has not been previously surveyed for cultural resources within the last 10 years. If the sensitivity is determined to be moderate to high, an intensive archaeological and/or architectural survey is required to investigate the potential presence of historic properties. The individual conducting this survey must meet the Secretary of the Interior's Standards for Professional Qualifications (48 FR 44738-44739) in the discipline relevant to a particular resource type. For example, archeologists should not document and evaluate buildings or structures and architectural historians should not document and evaluate archaeological sites. The identification and qualifications for those participating in any survey and evaluation of resources should be included with the survey results. The criteria listed below are indicators of low sensitivity for the presence of historic properties for consideration when determining if an archaeological or architectural survey is needed.

Low sensitivity indicators:

- Previous archaeological and/or architectural survey within the last 10 years with negative results.
- In a location created in modern times (i.e., built on fill placed within the last 45 years or within an area excavated within the last 45 years).
- USACE has reviewed the project description and determined that a survey is not warranted based on the proposed activity and its location.

State survey guidance and standards are provided in the September 1995 Historic Properties Survey Manual Guidelines for the Identification of Historical and Archaeological Resources in Massachusetts available. State survey guidance and standards for underwater surveys are provided

[18] https://www.sec.state.ma.us/mhc/mhcform/formidx.htm

in the Board of Underwater Archaeological Resources' 2022 Policy Guidance on Archaeological Investigations and Related Survey Standards for the Discovery of Underwater Archaeological Resources. This guidance is available on the NAE Regulatory website: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/.

Please note, a negative result from MHC and/or BUAR does not necessarily mean no historic properties are present. Often proposed project sites have not been previously subject to a survey, so historic properties which may be present have not been previously recorded.

4. Tribal Coordination

Prospective applicants shall mail the Project Notification Form, project narrative, location (coordinates), plans with locus map, soil maps, and information on cultural resources to the Wampanoag Tribe of Gay Head (Aquinnah), Mashpee Wampanoag Tribe, Narragansett Indian Tribe, and/or Stockbridge-Munsee Community Band of Mohican Indians with interests in the project location. Preferred tribal contact information, including their respective areas of interest, can be found below. Applicants shall follow the same procedures as identified in Section 3(a)i-iii above when notifying Tribes of the proposed activity. Applicants shall provide the USACE with any responses received from the tribe(s) with their PCN application. If a tribe does not respond within 30 days of receiving the notification, the applicant shall provide USACE with all documentation of tribal outreach with their SV or PCN submission (e.g., emails, letters, phone call log, etc.). If the tribe indicates the presence of a previously unrecorded cultural resource, including a traditional cultural property (TCP) or traditional cultural landscape (TCL), a PCN is required.

5. Effect Determination

The project may have the potential to affect historic properties and/or tribal resources if 1) notification recipients respond within 30 calendar days of notification with concerns, 2) historic properties eligible for listing, or potentially eligible for listing in the NRHP, are present or 3) tribal resources are known to be present. The USACE may need to further review the project to confirm potential effects to historic properties and/or tribal resources. A PCN is required for any activity that may affect a historic property.

The USACE may determine the project will have 'no effect' on historic properties (i.e., no historic properties affected) when procedures outlined in Section 3 above are followed and no cultural resources are identified. Similarly, if historic properties are identified and will be completely avoided, the USACE may determine 'no effect.'

6. Contact Information:

Massachusetts Historical Commission

The Massachusetts Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

No email. Applicants or their representatives must send project information via certified mail and submit the certified mail receipt to the USACE or send via regular mail and submit proof of delivery.

Area of concern: All of Massachusetts.

Massachusetts Board of Underwater Archaeological Resources (BUAR)

100 Cambridge Street, Suite 900
Boston, Massachusetts 02114
Email: david.s.robinson@mass.gov

Applicants or their representatives must send project information via email (***strongly preferred***) or regular mail and provide proof of receipt or proof of delivery.

Area of concern: All waterbodies in Massachusetts.

Wampanoag Tribe of Gay Head (Aquinnah)

Bettina Washington
Tribal Historic Preservation Officer (THPO)
20 Black Brook Road
Aquinnah, Massachusetts 02535
Email: thpo@wampanoagtribe-nsn.gov

Applicants or their representative must send project information via email (***preferred***) or regular mail and provide proof of receipt or proof of delivery.

Area of concern: All of Massachusetts.

Mashpee Wampanoag Tribe

ATTN: David Weeden
Tribal Historic Preservation Officer (THPO)
483 Great Neck Road South
Mashpee, Massachusetts 02649
Email: 106review@mwtribe-nsn.gov
Cc: David.weeden@mwtribe-nsn.gov

Applicants or their representative must send project information via email (***preferred***) or regular mail and provide proof of receipt or proof of delivery.

Area of concern: All of Massachusetts.

Narragansett Indian Tribe

ATTN: John Brown
Tribal Historic Preservation Officer (THPO)
Narragansett Indian Longhouse
4425 South County Trail
Charlestown, Rhode Island 02813
Email: tashtesook@aol.com

Applicants or their representative must send project information via email (***preferred***) or regular mail and provide proof of receipt or proof of delivery.

Area of concern: Massachusetts east of the Connecticut River.

Stockbridge-Munsee Community Band of Mohican Indians

ATTN: Jeff Bendremer
Tribal Historic Preservation Manager
Stockbridge-Munsee Community
Tribal Historic Preservation Extension office
86 Spring Street
Williamstown, Massachusetts 01267
Email: thpo@mohican-nsn.gov

Applicants or their representative must send project information via email (***preferred***) or regular mail and provide proof of receipt or proof of delivery.

Area of concern: West of the Connecticut River and Northfield, Montague, Miller's Falls, Turner's Falls, Sunderland, Amherst, Hadley, South Hadley, Chicopee, Springfield and Longmeadow.

APPENDIX B PRE-CONSTRUCTION NOTIFICATION

U.S. Army Corps of Engineers (USACE), New England District (NAE)

PRE-CONSTRUCTION NOTIFICATION (PCN)

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.

Principal Purpose The information provided will be used in evaluating activities under Pre-Construction Notification procedures within New England.

Routine Uses This information may be shared with other federal, state, and local government agencies during the application review process. Submission

Disclosure of requested information is voluntary. However, if information is not provided the PCN application cannot be fully evaluated nor can USACE render a permit decision.

Instructions The applicant must complete ALL required sections of this document before their submission to USACE. The PCN submission to USACE shall include one set of drawings which show the location and character of the proposed activity, statements that address each required field below, and documentation that supports each field (e.g., emails, letters, description/narrative, phone calls, surveys, reports, etc.). Electronic submissions to the following address are strongly preferred: cenae-r-ma@usace.army.mil. The email subject line shall contain the following: General Permit #, PCN, City/Town, and date submitted. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY USACE)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (*agent is not required*)
First - Middle - Last -	First - Middle - Last -
Company -	Company -
E-mail Address -	E-mail Address -
6. APPLICANT'S ADDRESS:	9. AGENT'S ADDRESS:
Address-	Address-
City - State - Zip - Country -	City - State - Zip - Country -
7. APPLICANT'S PHONE NOs. with AREA CODE	10. AGENT'S PHONE NOs. with AREA CODE
a. Residence b. Business c. Fax d. Mobile	a. Residence b. Business c. Fax d. Mobile

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act on my behalf as my agent in the processing of this general permit PCN application and to furnish, upon request, supplemental information in support of this general permit PCN application.

_____ _____
SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)	14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)
15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)	City: State: Zip:
Latitude: °N Longitude: °W	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

State Tax Parcel ID: Municipality:

Section: Township: Range:

17. DIRECTIONS TO THE SITE.

18. IDENTIFY THE SPECIFIC GENERAL PERMIT(S) YOU PROPOSE TO USE:

19. DESCRIPTION OF PROPOSED GENERAL PERMIT ACTIVITY (*see instructions*)

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

21. PURPOSE OF GENERAL PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by Proposed General Permit Activity (*see instructions*)

Area (square feet)	Length (linear feet)	Volume (cubic yards)	Duration	Purpose

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

23. List any other GP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project on any related activity (*see instructions*)

24. If the proposed activity will result in the loss of aquatic resources that exceed those identified in the New England District Compensatory Mitigation Thresholds, explain how the compensatory mitigation requirement will be satisfied. (*see instructions*)

25. Is Any Portion of the General Permit Activity Already Complete? ☐ Yes ☐ No If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed GP activity or utilize the designated critical habitat that might be affected by the proposed GP activity. (*see instructions*)

27. List any historic properties that have the potential to be affected by the proposed GP activity or include a vicinity map indicating the location of the historic property or properties. Attach relevant project information, along with any responses received from project notifications to this submittal. (*see instructions*)

28. For a proposed GP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

29. If the proposed GP activity also requires permission from the USACE pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the USACE district having jurisdiction over that project? ☐ Yes ☐ No

If "yes", please provide the date your request was submitted to the USACE District:

30. Does the activity require a 401 Water Quality Certification (WQC)? If so, specify the type of 401 WQC that is required (general or individual). In cases where an individual 401 WQC is required, provide the date the 401 WQC certification request was submitted to the certifying authority and their contact information.

31. If the terms of the GP(s) you want to use require additional information to be included in the PCN (i.e. sampling and analysis plan), please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

32. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

The Pre-Construction Notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a

Department of the Army

General Permit (GP) Pre-Construction Notification (PCN)

Blocks 1 through 4. To be completed by the U.S. Army Corps of Engineers.

Block 5. Applicant' Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the PCN, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where they can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant, if an agent is to be employed.

Block 12. Proposed General Permit Activity Name or Title. Please provide a name identifying the proposed GP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the GP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed GP activity is located at a site having a street address (not a box number), enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed GP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed GP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed GP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed GP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific General Permit(s) You Propose to Use. List the number(s) of the General Permit(s) you want to use to authorize the proposed activity (e.g., GP 4).

Block 19. Description of the Proposed General Permit Activity. Describe the proposed GP activity, including the direct and indirect adverse environmental effects of the proposed activity. The description of the proposed activity should be sufficiently detailed for USACE to determine that the adverse environmental effects of the activity will be no more than minimal. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide drawings to show that the proposed GP activity complies with the terms of the applicable GP(s). Drawings should contain sufficient detail to provide an illustrative description of the proposed GP activity, but do not need to be detailed engineering plans. The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.

Block 20: Description of Proposed Mitigation Measures. Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed GP activity. The description of any proposed mitigation measures should be sufficiently detailed for USACE to determine how the measures would avoid and minimize adverse environmental effects. If adverse effects exceed the New England District compensatory mitigation thresholds, you must document how compensatory mitigation would be satisfied in Block 24.

Block 21. Purpose of General Permit Activity. Describe the purpose and need for the proposed GP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed General Permit Activity. For discharges of dredged or fill material into Waters of the U.S., provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed GP activity. For structures or work in Navigable Waters of the U.S. subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed GP activity. The area of impact includes the structures or fills with direct or indirect effects to waters of the U.S. The length of impact includes the length of a stream, including is banks, that are directly affected by the structures or fills. The duration of impact should be identified as temporary (xx days) or permanent. The impact purpose should briefly describe what structure or fill is responsible for the impact.

Block 23. Identify Any Other General Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity. List any other GP(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. For linear projects, list other separate and distant crossings of waters and wetlands authorized by these GPs that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 23.

Block 24. Compensatory Mitigation Statement for Losses Greater Than the New England District Compensatory Mitigation Thresholds. New England District requires compensatory mitigation at a minimum one for one replacement ratio or greater for all aquatic resource losses that require a PCN and exceed the New England District Compensatory Mitigation Thresholds, unless USACE determines in writing that either some other form of mitigation is more environmentally appropriate or the adverse environmental effects of the proposed GP activity are no more than minimal without compensatory mitigation, and provides an activity specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than the New England District Compensatory Mitigation Thresholds or provide an explanation of why USACE should not require wetland compensatory mitigation for the proposed GP activity. If more space is needed, attach an extra sheet of paper marked Block 24.

Block 25. Is Any Portion of the General Permit Activity Already Complete? Describe any work that has already been completed for the GP activity.

Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might be Affected by the General Permit Activity. If you are not a federal agency, and if any listed species or designated critical habitat might be affected or is in the vicinity of the proposed GP activity, or if the proposed GP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed GP activity or utilize the designated critical habitat that might be affected by the proposed GP activity. If you are a Federal agency, and the proposed GP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

Block 27. List Any Historic Properties that Have the Potential to be Affected by the General Permit Activity. If you are not a federal agency, and if any historic properties have the potential to be affected by the proposed GP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed GP activity. Provide all relevant documentation about these historic properties in the PCN submittal. If you are a Federal agency, and the proposed GP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the General Permit Activity Would Occur in such a River. If the proposed GP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a “study river” under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit http://www.rivers.gov/

Block 29. General Permit Activities that also Require Permission from the USACE Under 33 U.S.C. 408. If the proposed GP activity also requires permission from the USACE under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a USACE federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the USACE district having jurisdiction over that project.

Block 30. 401 Water Quality Certification. As described above, specify if the activity requires a 401 WQC from the certifying authority.

Block 31. Other Information Required For General Permit Pre Construction Notifications. The terms of some of the General Permits include additional information requirements for preconstruction notifications:

* Maintenance – information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
* Temporary Construction, Access, and Dewatering – a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions.
* Repair of Uplands Damaged by Discrete Events – documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
* Commercial Shellfish Aquaculture Activities – (1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area; (2) the name(s) of the species that will be cultivated during the period this GP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area (a detailed survey is not required).Dredging – (1) a proposed sampling and analysis plan shall be provided to USACE for approval prior to its execution. Pre-application meetings are encouraged.
* Beach Nourishment – sediment grain size should be determined for the length of the beach where nourishment is proposed. The frequency and locations of sediment sampling shall be sufficient to identify the sediment composition of the beach profile. This data shall be consolidated to generate a sediment gradation curve for each sampled transect. Each sampled transect should also be identified on the project plans (drawings).

If more space is needed, attach an extra sheet of paper marked Box 31.

Block 32. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the GP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the GP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the GP activity (including compliance with special conditions, mitigation, etc.).

DELINEATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by the USACE. The permittee may ask the USACE to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the USACE does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. The 60-day PCN review period will not start until a delineation has been completed.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient drawings should also be included. Please submit one copy of all drawings on 8½ x 11 inch plain white paper (electronic submissions preferred). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed GP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived. Some States, Tribes, or EPA have issued water quality certification for one or more GPs. Please check the New England District website to see if water quality certification has already been issued for the GP(s) you wish to use. For proposed GP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained, or a presumption of concurrence must occur. Some States have issued Coastal Zone Management Act consistency concurrences for one or more GPs. Please check the New England District website to see if Coastal Zone Management Act consistency concurrence has already been issued for the GP(s) you wish to use.

APPENDIX C SELF-VERIFICATION NOTIFICATION

U.S. Army Corps of Engineers (USACE)

SELF-VERIFICATION NOTIFICATION (SVN)

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.

Principal Purpose This information will be used in evaluating activities under Self-Verification procedures within Massachusetts.

Routine Uses Routine uses will include: (1) Documenting compliance with the terms and conditions of the General Permit (GP) for activities that may require authorization pursuant to one or more of USACE's Regulatory authorities. (2) Records may be referred to other Federal, State, and local agencies for evaluation and enforcement purposes.

Disclosure Failure to fully comply and abide by the GP terms and conditions prior to commencing work and after completion project may result in formal enforcement action, up to and including monetary penalties and/or legal action, pursuant to 33 CFR Part 326.

Instructions The permittee must complete ALL required sections of this document before commencing USACE-regulated activities. A copy of this completed SVN must be kept on site during construction and be made available for review by USACE and other Federal, State, & Local regulatory authorities at any time. Within 30 days of initiating project construction, the permittee shall submit the completed SVN to USACE. The SVN shall be submitted to USACE as **ONE signed document** that includes project plans and documentation that supports each field (e.g., emails, letters, description, phone calls, surveys). Electronic submissions to the following address are strongly preferred: cenae-r-ma-sv@usace.army.mil. The email subject line shall contain the following: GP #, SVN, City/Town, and date submitted.

(ITEMS 1 THRU 3 TO BE FILLED BY USACE)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED

APPLICANT AND AGENT INFORMATION

4. APPLICANT'S NAME	7. AGENT'S ADDRESS:
First - Middle - Last -	First - Middle - Last -
Company -	Company -
E-mail Address -	E-mail Address -
5. APPLICANT'S ADDRESS:	8. AGENT'S ADDRESS:
Address-	Address-
City - State - Zip - Country -	City - State - Zip - Country -
6. APPLICANT'S PHONE NOs. w/AREA CODE	9. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business c. Fax	a. Residence b. Business c. Fax

NAME, LOCATION, AND DESCRIPTION OF PROJECT SITE

10. PROJECT NAME OR TITLE

11. FILE NUMBER(S) OF PREVIOUS USACE ACTIONS ON THE SITE (if applicable)	12. NAME OF WATERBODY
13. PROJECT COORDINATES (in decimal degrees)	14. PROJECT STREET ADDRESS (if applicable)
Latitude: ◦N Longitude: ◦W	Address
	City - State - Zip -

ACTIVITY TYPE, PROJECT IMPACTS, AVOIDANCE & MINIMIZATION

15. GENERAL PERMIT ACTIVITIES (CHECK ALL THAT APPLY)

1 ☐	6 ☐	11 ☐	16 ☐	21 ☐
2 ☐	7 ☐	12 ☐	17 ☐	22 ☐
3 ☐	8 ☐	13 ☐	18 ☐	23 ☐
4 ☐	9 ☐	14 ☐	19 ☐	24 ☐
5 ☐	10 ☐	15 ☐	20 ☐	25 ☐

16. SUMMARY OF PROJECT IMPACTS (*see instructions*)

Area (square feet)	Length (linear feet)	Volume (cubic yards)	Duration

17. PROJECT PLANS (BY CHECKING THE BOXES BELOW, YOU CERTIFY THESE ITEMS ARE COMPLETE) (*see instructions*)

- ☐ a. Plans shall at least contain the following: Vicinity Map, Plan View, and Typical Cross Section View of the proposed activity.
- ☐ b. All direct, indirect and secondary impacts from USACE regulated activities are shown on the project plans.
- ☐ c. The size of the impact area for each activity (acre, square feet, linear feet) are shown on the project plans.
- ☐ d. For discharges of fill material (§404), the volume of fill material is identified on the project plans.
- ☐ e. The duration of each impact, permanent or temporary (X days), is identified on the project plans.
- ☐ f. Do activities with permanent impacts result in the loss of waters? If so, this is identified on the project plans.
- ☐ g. All aquatic resources in the vicinity of the USACE regulated activities are delineated on the project plans.

18. AVOIDANCE & MINIMIZATION (BY CHECKING THE BOXES BELOW, YOU CERTIFY THESE CRITERIA ARE MET) (*see instructions*)

- ☐ a. The project has been designed to avoid and minimize impacts to aquatic resources.
- ☐ b. The footprint of activities in waters of the U.S. has been reduced to only what is necessary to achieve the overall project purpose.
- ☐ c. All practicable measures have been taken to avoid and minimize impacts to aquatic resources through construction techniques and site access (e.g., Best Management Practices, Time of Year Restrictions).
- ☐ d. All temporary impacts from USACE regulated activities will be restored upon completion of construction and the project area will be returned to pre-construction contours and conditions.

COMPLIANCE WITH FEDERAL REGULATIONS & SUPPLEMENTAL INFORMATION

19. DUE DILIGENCE (*see instructions*)

Complete the entries below to document compliance with the following Federal requirements. Construction may NOT begin if a PCN is/may be required, and you must contact USACE to determine permitting requirements. Documentation that demonstrates how the activity complies with each field below shall be submitted to the USACE as noted in the instructions block. See each General Condition (GC) in the GP for how to comply with each requirement.

a. State Historic Preservation Officer	Select Option		
b. Massachusetts BUAR	Select Option		
c. Tribal Historic Preservation Officers	Select Option		
d. Endangered Species Act - NOAA	Select Option		
e. Endangered Species Act - USFWS	Select Option		
f. Northern Long Eared Bat (ESA)	Select Option		
g. Essential Fish Habitat	Select Option		
h. Wild & Scenic Rivers	Select Option		
i. 401 Water Quality Certification 401	Select Option		
	401 WQC/OOC File Number:	OOC issued:	401 issued:
j. Section 408 Permission	Select Option		
k. Coastal Zone	Select Option		
l. Construction Mats	Select Option		
m.Time of Year Restrictions	Select Option		
n. Vernal Pools	Select Option		
o. Sediment & Erosion Controls	Select Option		
p. Stream/Wetland Crossings	Select Option		

20. AQUACULTURE ACTIVITIES - GP 18 (*see instructions*)

- ☐ a. If required, an Aquaculture Certification from the Massachusetts Division of Marine Fisheries was obtained prior to commencing work.
- ☐ b. Coordination with the U.S. Coast Guard pursuant to Private Aids to Navigation has occurred prior to commencing work.
- ☐ c. If required, a MEPA Certificate was obtained from the Massachusetts Environmental Protection Agency prior to commencing work. Select Option
- ☐ d. The prospective permittee contacted local authorities (e.g. harbormaster, select board, shellfish constable) for authorization of their facility prior to commencing work.

21. ADDITIONAL INFORMATION/ATTACHMENTS (*see instructions*)

- ☐ a. The project plans are enclosed in this SVN submittal (see block 17).
- ☐ b. The activity Select Option funded through the Bipartisan Infrastructure Bill (also known as the Infrastructure Investment and Jobs Act).
- ☐ c. All required state, local and federal approvals were acquired prior to starting construction in USACE jurisdiction.
- ☐ d. After construction of the activity is completed, a complete Certificate of Compliance will be submitted to USACE.

22. IS THERE ANOTHER LEAD FEDERAL AGENCY:

☐ YES ☐ NO

23. STATEMENT OF AUTHORIZATION *(see instructions)*

I certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

24. SIGNATURES *(see instructions)*

I hereby certify that the information in this Self-Verification Notification is complete and accurate. As the applicant or their duly authorized agent, I certify the activity was completed in accordance with the terms and conditions of the GP. This includes all applicable terms, general conditions, and activity-specific GP criteria. I agree to allow the duly authorized representatives of the Corps of Engineers Regulatory Program and other regulatory or advisory agencies to enter upon the premises of the project site at reasonable times to evaluate inspect and photograph site conditions. This consent to enter the property is superior to, takes precedence over, and waives any communication to the contrary. For example, if the property is posted as “no trespassing” this consent specifically supersedes and waives that prohibition and grants permission to enter the property despite such posting.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a
Department of the Army
General Permit (GP) Self-Verification

Blocks 1 through 3. To be completed by the Corps of Engineers.

Block 4. Applicant' Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the self-verification, please attach a sheet of paper with the necessary information marked Block 4.

Block 5. Address of Applicant. Please provide the full address of the party or parties responsible for the self-verification. If more space is needed, attach an extra sheet of paper marked Block 5.

Block 6. Applicant Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 7 through 9. To be completed, if you choose to have an agent.

Block 7. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 8 and 9. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where they can be reached during normal business hours.

Block 10. Proposed General Permit Activity Name or Title. Please provide a name identifying the proposed GP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 11. File Number(s) of Previous USACE Actions on the Site Please provide any known USACE file number. If the activity does not have a known USACE file number, you may state N/A.

Block 12. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the GP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 13. Proposed Activity Coordinates. Please enter the latitude and longitude of where the proposed GP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 13.

Block 14. Proposed Activity Street Address. If the proposed activity is located at a site having a street address (not a box number), enter it in Block 14.

Block 15. General Permit Activity Type. Please select all GP activity types that apply to the proposed activity. A list of GP activity types can be found in Section III of the GP.

Block 16. Summary of Project Impacts. Please provide ALL proposed impacts, both temporary and permanent in duration, that are located in Waters of the United States. The area of impact shall be provided in square feet (SF). When applicable, impacts that result in conversion of stream bank or shoreline must also be identified in linear feet (LF). Dredging or the discharge of dredged or fill material shall also include the volume, cubic yards (CY), of material removed from or placed into Waters of the U.S. If more entries are required, please attach a table matching the desired format in Block 16.

Block 17. Project Plans. Please verify that items a-g are included in the project plans. Three types of illustrations are necessary to properly depict the proposed work. These illustrations or drawings are identified as a Vicinity Map, a Plan View (Aerial view) and a Cross Section Map. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient drawings (longitudinal profile) should also be included. Plans must accurately depict the existing conditions and all aspects of the proposed activity located in waters of the U.S. Please submit one copy of all drawings formatted to print on 8½ x 11 inch or 11 x 17 inch plain white paper. Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross section). While illustrations need not be certified engineering sheets; they should be clear, accurate, contain all necessary information, and depict all proposed work. Each submission must also include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by USACE.

Block 18. Avoidance & Minimization. Please verify that items a-d have been implemented for the proposed activity.

Block 19. Due Diligence. Please complete all the fields and submit documentation to USACE to demonstrate compliance with the above requirements. This Documentation may include emails, letters, meeting notes, phone call log, project narrative, project plans, a species list from the NOAA Section 7 Mapper, a completed copy of the IPAC determination keys, etc. Documentation should be limited to what is necessary to demonstrate how the proposed activity meets each requirement. Refer to the MA GP, Appendix A, for specific guidance on the identification of previously identified historic properties and previously unidentified historic properties. Endangered Species: *The applicant must be designated as the non-federal representative for the purposes of Section 7 consultation to select the Rangewide D-Key options. Otherwise, the applicant shall select the following option when IPAC indicates the NLEB is present: "The activity IS located within the NLEB Species Range (PCN Required)."

Block 20. Aquaculture Activities. Please verify that items a-d have been obtained or completed prior to commencing work in waters of the U.S.

Block 21. Additional Information/Attachments. Please verify that items a-d have been completed prior to commencing work in waters of the U.S.

Block 22. Lead Federal Agency. Please identify if there is another lead federal agency involved with the proposed activity. Enter the lead federal agency name (e.g., the Federal Emergency Management Agency, FEMA) and the agency's designated person of contact for the activity.

Block 23. Statement of Authorization. The applicant shall sign this section for all activities. If an agent is to be employed, the agent shall sign this section.

Block 24. Signatures. The SVN must be signed by the person proposing to undertake the GP activity, and if applicable, the authorized party (agent) that prepared the SVN. The signature of the person proposing to undertake the GP activity shall be an affirmation that the party submitting the SVN possesses the requisite property rights to undertake the GP activity.

US Army Corps of Engineers®
New England District

APPENDIX D: PCN APPLICATION CHECKLIST

The following information shall be submitted for all PCNs for USACE to properly evaluate your application. Some applications may require more information and this checklist is offered as a tool to assist applicants with submitting a complete application.

SECTION 1: GENERAL APPLICATION INFORMATION

1. ☐ Complete the Pre-Construction Notification document (Appendix B).
2. ☐ Specify which local/state/federal authorizations are required for the project and if any have been obtained or applied for at the time of USACE application submittal.
3. ☐ Identify all funding sources the project will receive or has received to date. Provide any relevant information in the application submission.
4. ☐ Is this part of a larger project that is being implemented in phases? If so, describe the project schedule and how each phase will be implemented.
5. ☐ Describe the existing conditions on the site and the general land use in the vicinity of the project at the time application submittal.
6. ☐ Provide any historic information available that you may have of project area, e.g., existing USACE permit numbers, the names under which the permits were obtained if the permit numbers are unknown, construction dates and proof of prior existence (aerials, photos, town hall records, affidavits, state or local permits, etc.) to verify that the project predates regulation and is "vested".[19]
7. ☐ The anticipated start and end dates for construction.

SECTION 2: WETLAND DELINEATION

8. ☐ Data used to support aquatic resource boundary determinations (delineation forms, delineation map(s) that show the locations of each aquatic resource in the project area, aerial and ground photographs, LIDAR imagery, national wetland inventory maps, soil maps, national hydrography dataset maps, floodplain maps, historical imagery, etc.).
9. ☐ Photographs of the wetland(s) and/or waterway(s) where impacts are proposed. Photos at low tide are preferred for work in tidal waters.
10. ☐ Indicate the relationship of the project area to waters of the U.S., i.e., adjacent wetlands, tidal influence or hydraulic connectivity through culverts, or other conveyances, etc.
11. ☐ At minimum the delineation map/figure should include the following:
    a. Contour lines showing topography.
    b. North arrow.
    c. Bar and text scale.
    d. Legend.
    e. Drawn project boundary.
    f. High tide line, mean high water, mean low water, ordinary high water mark, and/or wetland boundaries.
    g. Captions with a unique name for each aquatic resource and the area or length of the aquatic resource within the project area.

[19] Vested is exempt (someone or something) from a new law or regulation.

h. Appropriate landmarks and features (e.g., culverts, special aquatic sites, etc.).
i. Points showing the paired upland and wetland delineation locations for tidal and non-tidal wetlands only.

SECTION 3: AVOIDANCE & MINIMIZATION

12. ☐ Describe specific measures taken to avoid impacts to aquatic resources or describe why aquatic resources could not be avoided while achieving the project purpose and need.
13. ☐ For impacts to aquatic resources that could not be avoided, describe specific considerations/ measures taken to minimize the area of proposed impacts to aquatic resources in designing the project.
14. ☐ Describe specific measures taken to avoid and minimize the proposed direct, indirect, and secondary impacts to aquatic resources and their functions through construction techniques and timing.
15. ☐ If applicable, provide a restoration plan that describes how all temporary fills and structures will be removed and the area restored to pre-impact conditions (see GC 22).
16. ☐ If applicable, provide an Invasive Species Control Plan (see GC 29). For sample control plans, see www.nae.usace.army.mil/missions/regulatory/invasive-species.
17. ☐ If applicable, describe how the proposed wetland/waterbody crossing is compliant with GC 31, Stream Work and Crossings, and Wetland Crossings.

SECTION 4A: PROJECT IMPACTS

18. ☐ Describe the overall project and the activities located in Waters of the U.S. (WOTUS) that you are seeking authorization for.
19. ☐ Identify the following for project impacts in WOTUS:
    a. ☐ Direct, indirect, secondary impacts[20] within WOTUS.
    b. ☐ The size of each impact (square feet or acres, or linear feet).
    c. ☐ For discharges of fill material (§404), specify the volume of fill material to be discharged (cubic yards).
    d. ☐ The impact duration from each activity, permanent or temporary (X days).

SECTION 4B: PROJECT PLANS

20. ☐ Submit project plans that depict all impacts in WOTUS. On the project plans, applicants shall provide:

    General Information

    a. ☐ Plan view and typical cross-section view sheets that show the existing and proposed conditions. These illustrations should each be identified with a figure number, date of the map, the project title, the name of the applicant and the type of illustration (vicinity map, plan view, or cross section).
    b. ☐ Drawings, sketches, or plans that are legible, reproducible (color is encouraged, but features must be distinguishable in black and white), drawn to scale, and no larger than 11”x17” and 10 MB when submitted in digital format. Numeric and graphic/bar scales must agree, and plan details must be measurable using a standard engineer’s scale on printed plans. Reduced plans are not acceptable.
    c. ☐ The north arrow and remove miscellaneous non-wetland or water project related features such as conduits, utility poles, guardrails, etc.

[20] See definitions section for the definitions of direct, indirect, secondary impacts.

d. ☐ Clearly draw the overall limits of work, staging areas, disposal sites, access routes, and any permittee responsible mitigation sites. These areas may include both aquatic resources and upland areas.
e. ☐ Names or numbers of all roads in the site's vicinity and ownership and numbers of abutting parcels.
f. ☐ Datum in plan and elevation views. The horizontal datum shall be in the NAD 83 Massachusetts State Plane Coordinate System (INSERT) in U.S. survey feet. The vertical data in coastal projects shall be referenced to either MLLW or the North American Vertical Datum of 1988 (NAVD 88). Both the distance and depth units shall be U.S. survey feet and specified on the project plans.

Aquatic Resources & Project Impacts

g. ☐ Delineation of all aquatic resource types on site including salt marsh; other special aquatic sites (vegetated shallows, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges); other waters, such as lakes, ponds, vernal pools, natural rocky habitat (tidal only), and perennial, intermittent, and ephemeral streams.
h. ☐ Identify the substrate type (cobble/gravel, organic detritus, sand/shell, silt, mud) and the approximate percentage of each substrate type on site. Grain sizes shall be based on Wentworth grain size classification scale for granules, pebbles, cobbles, and boulders. Sediment samples with a content of 10% or more of pebble-gravel-cobble and/or boulder in the top layer (6-12 inches) should be delineated and material with epifauna/macroalgae should be differentiated from bare pebble-gravel-cobble and boulder.
i. ☐ The direction of ebb and flood in tidal waters and direction of flow in non-tidal waters.
j. ☐ In tidal waters, the project boundary distance from special aquatic sites identified in 20g above if within 25 feet from that resource.
k. ☐ USACE jurisdictional boundaries including ordinary high-water mark (OHWM), high tide line (HTL), mean high water (MHW). Other boundaries include mean low water (MLW), mean lower low water (MLLW), as applicable.
   - Non-tidal: OHWM and/or wetland boundaries.
   - Tidal (structures/work only): MHW, MLW.
   - Tidal (Fill and Structures/work): HTL, MHW, MLW.
   - Tidal (Dredging/Beach Nourishment): HTL, MHW, MLW, MLLW.
l. ☐ Identification of each aquatic resource with a unique name (ex. Wetland 1, Wetland 2, Tributary 1, Beaver Brook, Atlantic Ocean) and the size of each aquatic resource within the project area (square feet or acres).
m. ☐ Impacts to each aquatic resource with captions denoting the size of each impact (square feet, acres, or linear feet) and the duration of the impact (ex. Permanent, Temporary (X days).

SECTION 4C: PROJECT PLANS - SPECIFIC PROJECT INFORMATION

21. ☐ For projects involving Navigation, Structures, Dredging, and/or Beach Nourishment, the applicant shall also address the following:

Navigation

a. ☐ Identify the locations of adjacent Federal navigation project (FNP) and/or state/local navigation projects on the project plans.
b. ☐ Specify the distance between the FNP and proposed project boundary, the authorized depths of the FNP, and state plane coordinates of seaward end(s) of project structures near an FNP.

Structures

a. ☐ Identification of the piling type (steel, timber, concrete) and diameter to be removed and/or installed.
b. ☐ Specify the minimal height of the structures' frame over saltmarsh. To meet the SV threshold, piers must be ≤4 feet in width and this minimal height must achieve a 1.5:1 ratio (i.e., a 4-foot-wide pier is 6 feet above a saltmarsh).
c. ☐ For floats, the methods of securing them (piles, bottom anchors) and for keeping them off substrate (skids, stops) at low water. To meet the SV threshold, a minimum depth of 18-inches of water should be maintained below a floating dock/structure at lower tide levels.

Dredging

a. ☐ The area (SF, acre) and volume (CY) of material to be dredged waterward of MHW for each dredge location.
b. ☐ Dredge boundaries.
c. ☐ Bathymetry for existing, proposed, and historical (include dates and USACE permits) dredge depths.
d. ☐ The likely final angle of repose of the side cuts based on the physical characterization of the material to be dredged and based upon the high/ medium/low, wave or current energy of the location.
e. ☐ Label area whether the dredging is new, maintenance, improvement, or a combination.
f. ☐ Location of the disposal site (include location sheet). NOTE: For projects proposing open water, nearshore disposal, or beach nourishment, contact USACE as early as possible for sampling and testing protocols. Sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing may be required. Sampling/testing of sediments without such contact should not occur and if done, will be at the applicant's risk.
g. ☐ The methods and areas used to retain or prevent dredged material from running back into the wetland or waterway. Provide the capacity of the storage area and points of runback, including the overflow route, into the aquatic system.
h. ☐ For open-water disposal, explain why inland or beneficial reuse sites are not practicable.
i. ☐ Show the finished top elevation of the disposal site.

Beach Nourishment

a. ☐ For beach nourishment, identify the disposal footprint, existing and proposed nourishment profiles (multiple profiles are appropriate if the site is more than 150 feet long or non-contiguous), total fill area (SF) and volume (CY), fill area and volume waterward of the HTL, and delineation of dunes, banks, existing beach vegetation, and contours.
b. ☐ For beach nourishment identify the substrate type (fine sand, sand, cobble, boulder) and/or grain-size of existing material.

SECTION 5: STRUCTURES

22. ☐ For projects with the removal of existing pilings identify the number, type (steel, timber, concrete) and diameter of pilings to be removed and the methodology for removal (cut off at mud line, pulling, vibratory, etc.).
23. ☐ For projects with the installation of new pilings identify the number, type (steel, timber, concrete) and diameter of pilings to be installed and the methodology for installation (vibratory hammer, impact hammer etc.).
24. ☐ Identify any existing structures and moorings in waters adjacent to the proposed activity, their dimensions, and the distance to the limits and coordinates of any proposed mooring field or reconfiguration zone. For reconfiguration zone and mooring fields, provide the coordinates for all

corners based on the Massachusetts State Plane Coordinate System. Specify the maximum number of slips and/or moorings within proposed reconfiguration zones or anchorage areas.

25. ☐ The dimensions of the structure or work and extent of encroachment waterward of MHW and from affixed point on the shoreline or upland.
26. ☐ Shoreline of adjacent properties and property boundary offset for structures. In narrow waterbodies, the distance to opposite shoreline, waterway width, and structures across from proposed work.
27. ☐ For new commercial boating facilities, anchorage areas or reconfiguration zones, provide a description of the type of vessels that would use the facility, and any plans for sewage pump-out facilities, fueling facilities and contingency plans for oil spills.
28. ☐ See Sections 4A-C above.

SECTION 6: AQUACULTURE

29. ☐ Identify the coordinates for lease area corners and gear configuration area on the project plans.
30. ☐ Identify the proposed aquaculture gear type (buoys, floats, racks, trays, nets, lines, tubes, cages, containers, and other structures). Provide the impacts for each aquaculture gear type (see Section 4A 19a-d).
31. ☐ For a GP 18 to be valid, applicants must have (a) their MA DMF Aquaculture Certification letter for licensed shellfish aquaculture sites, (b) documentation that the applicant has coordinated with the U.S. Coast Guard regarding USCG Private Aids to Navigation standards, (c) their MEPA Certificate (if required), and (d) documentation that the applicant has contacted their local authorities (ex. harbormaster, select board, shellfish constable) for authorization of their facility.
32. Provide information on site the operation, maintenance, and access. Will the site be accessed via boat, kayak, etc.? Will cages be removed in the winter? How often will gear be checked on? Is there an operations plan for the proposed aquaculture area?
33. ☐ See Sections 4A-C above.

SECTION 7: DREDGING

34. ☐ Sampling plan requests for new, improvement or maintenance dredging must submit completed **Dredged Material Evaluation checklist found at Dredged Material Evaluation Checklist, Sampling and Analysis Plan Requirements from Applicant (army.mil)** and identify the method of handling/transporting the dredged material.
35. ☐ Identify grain-size of material to be dredged (e.g., silty sand) and provide any existing sediment grain size and bulk sediment chemistry data from the proposed project or nearby projects. Include information on any recent spills of oil and/or other hazardous materials and/or nearby outfalls. Document the information source, e.g., EPA database, the harbormaster or fire chief. If there are none, state “none”.
36. ☐ See Section 4A, 4B and 4C, Dredging 21(a-i) above.

SECTION 8: WETLAND/WATERBODY CROSSINGS

37. ☐ For the stream crossing, identify the crossing methodology on the project plan (e.g., dam and pump, dry, wet, etc.). Submit a waterway crossing sequencing plan with the application.
38. ☐ If the project includes a permanent crossing of a tidal waterway, your project design should be modified to match the velocity, depth, cross-sectional area, and substrate of the existing waterbody adjacent to the crossing and provide documentation (hydraulic analysis including low lying property analysis) that the size of the crossing will not restrict tidal flow over the full natural tide range and will not adversely affect abutting infrastructure.

39. ☐ If the work includes a permanent crossing of a non-tidal stream, your project design should be modified to match the culvert gradient of the existing stream channel profile, provide clearance for ≥1.2 times bank full width and conveyance should be embedded ≥1-2 feet for box culverts and pipe arches or ≥1-2 feet and at least 25 percent for rounded pipes/culverts in accordance with the Massachusetts Stream Crossing Standards. Provide the basis for any variation to this requirement.
40. ☐ If the work includes a permanent crossing of a non-tidal stream, the structure should be designed to include a natural bottom substrate within the conveyance that matches the characteristics of the substrate in the natural stream channel and the character of the banks (mobility, slope, stability, confinement, grain and rock size). The conveyance should be designed with a minimum openness ratio ≥0.82-feet (0.25-meters). For how to calculate openness ratio and stream simulation ecological approach for road and stream crossings, see https://www.nae.usace.army.mil/Missions/Regulatory/Stream-and-River-Continuity/.

SECTION 9: COMPENSATORY MITIGATION

41. ☐ Does the project require Compensatory Mitigation[21] for impacts to Waters of the U.S.? (See Section V in the 2023 Massachusetts General Permit)
42. ☐ If the project requires mitigation, does the selected compensatory mitigation option (i.e., In-Lieu Fee, permittee-responsible mitigation) deviate from the order of the options presented in §332.3(b)(2)-(6)? If so, please explain why. https://www.ecfr.gov/current/title-33/chapter-II/part-332/section-332.3
43. ☐ For any compensatory mitigation that involves preservation, the applicant must use a site protection instrument to preserve the parcel in perpetuity. (Conservation Easement, Deed Restriction, etc.) https://www.mass.gov/service-details/conservation-restriction-review-program.

SECTION 10: HISTORIC PROPERTIES & NOTIFICATIONS TO SHPO, THPOs, BUAR

44. ☐ Notify the SHPO, Massachusetts Historical Commission, of the Project via Certified Mail and include proof of delivery or receipt in the application package (See Appendix A).
45. ☐ As applicable, notify the THPOs, Narragansett Indian Tribe, Wampanoag Tribe of Gay Head (Aquinnah), and Mashpee Wampanoag Tribe, of the Project via email OR mail and include proof of delivery or receipt in the application package (See Appendix A).
46. ☐ As applicable, notify the BUAR via email (*strongly preferred*) OR mail and include proof of delivery or receipt in the application package (See Appendix A).
47. ☐ Include responses to this notification in the permit application.
48. ☐ As applicable, information on historic properties (Tribal and Archaeological) within the project area should be provided in the permit application.

SECTION 11: ENDANGERED SPECIES & ESSENTIAL FISH HABITAT

49. ☐ Provide a USFWS Information for Planning and Consultation (IPaC) Official Species List from https://ecos.fws.gov/ipac and the email of the individual who generated the list (see GC 10 of the 2023 Massachusetts General Permit for more information).
50. ☐ Provide a species list from the NMFS Section 7 Endangered Species Act mapper at https://noaa.maps.arcgis.com/apps/webappviewer/index.html.
51. ☐ Provide a species list from the NMFS Essential Fish Habitat Mapper at https://www.habitat.noaa.gov/apps/efhmapper/?page=page_3.

[21] Your mitigation proposal must be consistent with the December 29, 2020 Compensatory Mitigation Standard Operating Procedures at https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Mitigation/Compensatory-Mitigation-SOP-2020.pdf and 2008 Mitigation Rule.

52. ☐ If the project will generate turbidity, describe the extent of turbidity and if erosion controls will be used to contain turbidity. If turbidity controls are not operationally feasible, explain the basis for your conclusion and identify any other measures that you will implement to minimize resuspension of sediment.
53. ☐ Identify the substrate type and any aquatic resources that will be affected by the proposed action. (SAV, salt marsh, sand, silt/clay, rocky/hard bottom)
54. ☐ For projects which will include the installation of pilings/sheet-piles, identify the substrate at the project site (sand, cobble, silt/mud/clay), the installation method (vibratory hammer, impact hammer, combination) and indicate whether the following “soft start” procedures at beginning of the workday and after a 30-minute period of rest will be deployed:
    a. ☐ Vibratory Pile Installation: pile driving will be initiated for 15 seconds at reduced energy followed by a one-minute waiting period. This sequence of 15 seconds of reduced energy driving, one-minute waiting period will be repeated two additional times, followed immediately by pile-driving at full rate and energy.
    b. ☐ Impact Pile Installation: pile driving will commence with an initial set of three strikes by the hammer at 40% energy, followed by a one-minute wait period, then two subsequent 3-strike sets at 40% energy, with one-minute waiting periods, before initiating continuous impact driving.
55. ☐ If the project involves dredging, describe any dredge history, number of dredge events to be covered by the permit, erosion/sediment controls, dredge type, intake structures (mesh screen size), dredged material disposal site.
56. ☐ For project activities associated with structures, identify the number, type (drill barge, work boat, tugboat, etc.), and size of any temporary vessels that will be used. Specify measures that will be implemented to ensure vessels are not berthed in shallow water or will “ground out” at low tide.
57. ☐ For aquaculture projects identify whether any component of the gear is seasonal (will be removed annually) or will be in place year-round. If gear will be present year-round and will be variably managed (e.g., floating in summer, bottom in winter) identify month/date for such configurations.
58. ☐ For aquaculture projects identify whether the project will involve use of an existing vessel or new vessel. Identify the length for all work vessels and identify the distance round trip from vessel berthing location and aquaculture area.
59. ☐ For project activities associated with docking structures (either commercial, industrial, or recreational) identify the number, type (motorized/non-motorized, jet-ski, sailboat, kayak, canoe, other that will be berthed there and the sizes of each.
60. ☐ Information required for Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act:
    a. Results of an eelgrass survey completed per the INSERT.
    b. Essential Fish Habitat Assessment to determine project-related impacts to essential fish habitat, using guidance developed by the National Marine Fisheries Service.
61. ☐ A document containing the following information (requirements of 50 CFR §600.920(e)(3)):
    a. Description of proposed action.
    b. Analysis of potential adverse effects on essential fish habitat.
    c. Conclusions regarding the effects of the action on essential fish habitat.
    d. If applicable, proposed mitigation.
    e. Analysis of alternatives to the proposed action.
    f. Other:

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DOCUMENT A00832

ARMY CORPS OF ENGINEERS

RESPONSES TO COMMENTS

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IMPROVING COMMUNITIES TOGETHER

MEMORANDUM

Date:	February 2, 2026	Job No.:	22.10326.16
To:	Kevin Newton (USACE)		
Cc:	Courtney Walker (MassDOT) Greg Frazier (MassDOT) Heidi Davis (MassDEP) Tyler Lewis (MassDEP) Ryan Hale (MassDEP) Todd Warzecki (BETA) Matt Shute (BETA) Dan Vasconcelos (USACE)		
From:	Laura Krause, Associate (BETA) Tyler Drew, Scientist (BETA)		
Subject:	**Pleasant Street Bridge Replacement Project Pre-Construction Notification (NAE-2025-02456)**		

INTRODUCTION

The purpose of this memorandum is to provide responses to comments provided by Kevin Newton (USACE) received via email on January 27, 2025, associated with the Pre-Construction Notification for the Pleasant Street Bridge over Muddy Cove Brook Replacement Project in Dighton, Massachusetts. The comments provided by USACE are quoted below in *italics*, with BETA's responses provided in **bold**.

COMMENTS

1. *Please confirm if MassDOT is a co-applicant with the Town of Dighton, or if Dighton is the only applicant.*

   BETA: Yes, MassDOT is a co-applicant for this Project.

2. *Please provide FHWA/MassDOT's determination pursuant to Section 106 of the National Historical Preservation Act. I reviewed the submitted information and do not see a determination or proof of concurrence from SHPO.*

   BETA: The Section 106 proof of concurrence letter is attached.

3. *Please provide proof that the THPO of the Narragansett Indian Tribe was notified of the proposed undertaking. Documentation included in the submittal only appears to include proof of notification of the BUAR, Aquinnah THPO, and Mashpee Wampanoag THPO.*

   BETA: Due to the Federal Highway Administration (FHWA) being the lead federal agency for this project, a notification letter to the Narragansett THPO is not required.

4. *The PCN submittal includes documentation that an Abbreviated Essential Fish Habitat consultation was requested with NMFS. Please provide documentation of the outcome of the consultation once it is available.*

   BETA: The Abbreviated EFH consultation has been completed, and the determination is attached. MassDOT has agreed to Conservation Recommendations and Best Management Practices as noted in the EFH determination and supplemental correspondence.

5. *Please confirm that no salt marsh impacts will result from the project. Specifically, how will SM2 and SM3 be protected from potential impacts from the installation of nearby rip rap scour protection?*
   BETA: No impacts to Salt Marsh are proposed. The Project proposes to protect the downgradient Salt Marsh by installing sedimentation and erosion controls downgradient of the limit of work, and installing chain link fencing at the limit of work where work is immediately upgradient of SM2 and SM3. Additionally, the locations of proposed modified rock fill coincides with areas of existing stone and the project will maintain the existing limit of disturbance. A Revised Permit Plan set is attached, which more clearly labels the proposed fencing locations on Sheet 7.
6. *Please confirm if a US Coast Guard Bridge authorization is required.*
   BETA: A US Coast Guard Bridge authorization is not required as the Project qualifies for the exemption from US Coast Guard permits. The US Coast Guard issued their concurrence that the Project is exempt from Coast Guard bridge permit jurisdiction in the letter dated 1/30/2026. The Determination letter is attached.
7. *Please clarify if the proposed rip rap scour protection is expanding upon areas of existing rock fill or if the proposed scour measures will be reinforcing areas already containing scour protection.*
   BETA: Existing modified rock fill along both abutments was previously installed to stabilize slopes and provide scour protection. The proposed riprap stone will be installed in these areas to replace stones displaced during construction. The limit of the proposed stone on the plans is coincident with the limit of existing scour protection/slope stabilization.

Attached: **Section 106 Concurrence Letter**

EFH Federal Interagency Comment Form

Email Regarding BMP Coordination for EFH Protection

USCG Determination Letter

Revised Permit Plan Set

BS

RECEIVED

OCT 09 2025

MASS. HIST. COMM

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Monica Tibbits-Nutt, Secretary & CEO
Jonathan L. Gulliver, Highway Administrator

massDOT
Massachusetts Department of Transportation
Highway Division

RC.72234

October 2, 2025

CONCURRENCE: Brona Simon 11/4/25
BRONA SIMON
STATE HISTORIC
PRESERVATION OFFICER
MASSACHUSETTS
HISTORICAL COMMISSION

Ms. Brona Simon
State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

RE: Dighton—Bridge Replacement, Br. D-08-002,
Pleasant Street over Muddy Cove (MassDOT #613636)
Section 106 Review: No Adverse Effect
Section 4(f) Evaluation: Temporary Occupancy – No 4(f) Use

Dear Ms. Simon,

The Massachusetts Department of Transportation (MassDOT) proposes to expend federal funds to replace MassDOT Bridge D-08-002, which carries Pleasant Street over Muddy Cove in Dighton. Bridge D-08–002, constructed in 1914 and rehabilitated in 1949, is comprised of a single-span reinforced concrete T-beam superstructure supported by cast-in-place reinforced concrete counterfort abutments with wingwalls. The bridge has closed-panel reinforced concrete parapet railings. The crossing presently carries two 12' -wide travel lanes, with a 4'-wide shoulder along the west side and a 4'-wide grass berm on the east side.

Bridge D-08-002 was assessed by Kurt Jergensen, MassDOT's Historic Bridge Specialist. The bridge is a common structural type in MassDOT's bridge inventory, and is a typical, standardized example. The first reinforced concrete T-beam structure in Massachusetts was constructed by the Mass. Highway Commission in 1902, with designs largely standardized by 1910. As noted in the attached Historic Bridge Inventory form, Bridge D-08-002 lacks any significant architectural or engineering features and does not appear to be eligible for listing in the National Register.

MassDOT Cultural Resources Unit (CRU) staff have identified one National Register-listed property adjacent to the project Area of Potential Effects (APE): the **Thomas Andrews House/ Old Customs House (DIG.105)**. The Thomas Andrews House is listed in the National Register of Historic Places as a contributing element within the **Dighton Wharves Historic District (DIG.D)**.

MassDOT has reviewed the proposed project under the Massachusetts Statewide Programmatic Agreement for Section 106 of the National Historic Preservation Act of 1966, as amended [36 CFR 800], and has determined that the proposed work will have **No Adverse Effect** on the National Register-listed **Dighton Wharves Historic District** and the **Thomas Andrews House** property itself.

Project Description

The proposed work will include full replacement of the bridge on existing alignment with a structure 3' 8" wider than existing. The new structure will consist of a single-span precast concrete NEXT beam superstructure supported by cast-in-place reinforced concrete integral abutments on steel H-pile footings. The bridge will have three-rail painted steel ST-MTL4 railings and will carry two 11' -wide travel lanes with a 7'-wide shoulder on the west side, a 2'-wide shoulder and a single 6'-wide sidewalk on the east side of the bridge.

Ten Park Plaza, Suite 4160, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
mass.gov/massdot

Proposed work also includes full-depth pavement reconstruction within the existing footprint along the bridge approaches, encompassing a total length of 250', including the bridge; pavement reconstruction within the existing footprint along Muddy Cove Lane, extending approximately 80' toward the west; installation of granite curbing along the east side of the roadway, and HMA berm to the southwest of Muddy Cove Lane; riprap installation adjacent to the bridge abutments to provide scour protection; permanent relocation of two utility poles located to the north of the bridge and relocation of existing overhead utilities that cross Muddy Cove toward a utility pole on the north side of Muddy Cove Lane, to be permanently shifted approximately 40' to the north; in-kind replacement of guardrail along the bridge approaches and along the edge of Muddy Cove adjacent to Muddy Cove Lane, including extension of existing guardrail to the southeast of the bridge by approximately 60' toward the south; installation of temporary erosion and sedimentation barrier, and related work.

Thomas Andrews House

The National Register-listed Thomas Andrews House is a ca. 1770 two-story, five bay side gable Georgian style dwelling, located at 2298 Pleasant Street, with associated riverbank property on the east side of the roadway. The Thomas Andrews House is located about 160' to the southwest of the bridge. The property includes land situated along the shoreline on Taunton River to the east of Pleasant Street. No work will take place on the westerly side of Pleasant Street adjacent to the Thomas Andrews House. However, guardrail along the southeasterly quadrant leading up to the bridge will be extended by approximately 60' toward the south. A fire hydrant presently located near Station 10+60, Right, will be removed and reset 70' farther south, at Station 9+90, Right. Both installation of the guardrail and relocation of the fire hydrant will require a temporary easement on the Thomas Andrews House property (discussed below in 4(f) Evaluation).

Archaeological Assessment

A review of the MHC's archaeological maps in Macris Maps revealed three recorded pre-contact sites in the immediate vicinity of the project's APE: 19-BR-102 (Taunton River 3 Site); 19-BR-99 (Taunton River 2/ Russell Philips Site); and 19-BR-289 (Dutra's Farm Site). MassDOT conducted a site visit to the project area on November 1, 2024. Although undisturbed areas near Taunton River are likely to be sensitive for archaeological resources, it is the opinion of the MassDOT Archaeologist that low sensitivity can be ascribed to the project's direct APE based on the impacts of past roadway, bridge, utility, and drainage construction and roadside development. The proposed bridge will be constructed on the same alignment as the existing bridge. Buried utilities within the APE include a 2" diameter gas main and an 8" diameter water main. Soil borings indicate the Pleasant Street approaches were constructed on 8'-15' of fill in order to carry the roadway crossing above the shoreline along Muddy Cove and Taunton River.

Section 4(f) Evaluation: Temporary Occupancy – No 4(f) use

This project also requires one temporary occupancy, also known as a temporary construction easement, on the parcel occupied by the Thomas Andrews House. This temporary occupancy will allow construction access for placement of erosion control measures, guardrail installation, relocation of an existing water line and fire hydrant, grading, placement of loam and seed and other related construction and property restoration activities. The proposed temporary occupancies are highlighted in yellow on the enclosed plans.

It is MassDOT's opinion that the temporary occupancies on parcels occupied by NR-listed or -eligible properties will satisfy the five conditions required for a temporary occupancy not to constitute a "use" within the meaning of Section 4(f), pursuant to 23 CFR 774.13(d):

(1) Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
(2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
(3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
(4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
(5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

The SHPO is the official with jurisdiction over a historic site for the purposes of Section 4(f), pursuant to 23 CFR 774.17. Your concurrence with this Effect finding will signify that your office agrees with MassDOT's assessment that the proposed temporary occupancies do not constitute a "use" of NR-listed or -eligible historic properties under Section 4(f) and that the conditions listed above have been satisfied, pursuant to Condition 5.

Section 106 Consultation and Effect Determination

A letter was sent to Dighton Historical Commission (DHC) on April 23, 2025 by BETA consultants on MassDOT's behalf. This letter solicited comments relating to historic properties within the present project area. MassDOT has not received any comments from the DHC to date.

In the opinion of MassDOT, the proposed bridge replacement will result in **No Adverse Effect** on the **Thomas Andrews House**, a contributing property within the National Register-listed **Dighton Wharves Historic District**. Proposed work along the east side of Pleasant Street will not affect the Thomas Andrews House in any way and will not have a substantial effect on the character of either the property itself or the character of the historic district overall.

MassDOT solicits your concurrence with our No Adverse Effect finding in accordance with Stipulation V.C.1 of the amended Section 106 Programmatic Agreement. A copy of this letter has been forwarded to FHWA as specified under the terms of the Programmatic Agreement. If you should have any questions about this project, please contact me at 207-590-4999.

Sincerely,

Kurt Jergensen
Historic Bridge Specialist
Environmental Services

cc: Anthony Jones, FHWA
Encl: Project plans, incl. ROW plans
Locus map
HBI form, incl. photographs

Jergensen, Kurt E. (DOT)

From: Jergensen, Kurt E. (DOT)
Sent: Tuesday, October 7, 2025 11:35 AM
To: Bettina Washington
Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)
Attachments: Bridge D-08-002 PNF (MassDOT 613636).pdf; Locus map.pdf; 20250425 25% Highway Plans 613636.pdf; 20250708 Bridge Sketch Plans Rev3 613636.pdf

Dear Ms. Washington,

MassDOT is submitting the enclosed information regarding the proposed bridge replacement project to the Wampanoag Tribe of Gay Head (Aquinnah) to meet the Section 106 consultation requirements of the US Army Corps of Engineers. Please submit any written comments or concerns regarding historic or archaeological properties that may be affected by this project to Carrie Lavallee, P.E., Chief Engineer, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA 02116-3973, Attn: Jameson Harwood.

You also may send comments, questions, or requests for more information by email to either myself or Jameson.

Thank you very much.

Kurt Jergensen
Historic Bridge Specialist
Cultural Resources Unit, Environmental Section
MassDOT Highway Division
Ten Park Plaza, Boston, MA 02116
Cell: 207-590-4999

Jergensen, Kurt E. (DOT)

From: Microsoft Outlook
To: Bettina Washington
Sent: Tuesday, October 7, 2025 11:35 AM
Subject: Relayed: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Bettina Washington (thpo@wampanoagtribe-nsn.gov)

Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)



Dighton, Br.
D-08-002 bridg...

Jergensen, Kurt E. (DOT)

From: Jergensen, Kurt E. (DOT)
Sent: Tuesday, October 7, 2025 11:39 AM
To: Robinson, David S (EEA)
Cc: Harwood, Jameson (DOT)
Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)
Attachments: Bridge D-08-002 PNF (MassDOT 613636).pdf; Locus map.pdf; 20250425 25% Highway Plans 613636.pdf; 20250708 Bridge Sketch Plans Rev3 613636.pdf

Dear Mr. Robinson,

MassDOT is submitting the enclosed information regarding the proposed bridge replacement project to the Board of Underwater Archaeological Resources to meet the Section 106 consultation requirements of the US Army Corps of Engineers. Please submit any written comments or concerns regarding historic or archaeological properties that may be affected by this project to Carrie Lavallee, P.E., Chief Engineer, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA 02116-3973, Attn: Jameson Harwood.

You also may send comments, questions, or requests for more information by email to either myself or Jameson.

Thank you very much.

Kurt Jergensen
Historic Bridge Specialist
Cultural Resources Unit, Environmental Section
MassDOT Highway Division
Ten Park Plaza, Boston, MA 02116
Cell: 207-590-4999

Jergensen, Kurt E. (DOT)

From: Microsoft Outlook
To: Robinson, David S (EEA)
Sent: Tuesday, October 7, 2025 11:39 AM
Subject: Delivered: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)

Your message has been delivered to the following recipients:

Robinson, David S (EEA) (David.S.Robinson@mass.gov)

Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)



Dighton, Br.
D-08-002 bridg...

Jergensen, Kurt E. (DOT)

From: Jergensen, Kurt E. (DOT)
Sent: Tuesday, October 7, 2025 11:38 AM
To: David Weeden
Cc: 106review@mwtribe-nsn.gov; Harwood, Jameson (DOT)
Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)
Attachments: Bridge D-08-002 PNF (MassDOT 613636).pdf; Locus map.pdf; 20250425 25% Highway Plans 613636.pdf; 20250708 Bridge Sketch Plans Rev3 613636.pdf

Dear Mr. Weeden,

MassDOT is submitting the enclosed information regarding the proposed bridge replacement project to the Mashpee Wampanoag Tribe to meet the Section 106 consultation requirements of the US Army Corps of Engineers. Please submit any written comments or concerns regarding historic or archaeological properties that may be affected by this project to Carrie Lavallee, P.E., Chief Engineer, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA 02116-3973, Attn: Jameson Harwood.

You also may send comments, questions, or requests for more information by email to either myself or Jameson.

Thank you very much.

Kurt Jergensen
Historic Bridge Specialist
Cultural Resources Unit, Environmental Section
MassDOT Highway Division
Ten Park Plaza, Boston, MA 02116
Cell: 207-590-4999

Jergensen, Kurt E. (DOT)

From: Microsoft Outlook
To: David Weeden; 106review@mwtribe-nsn.gov
Sent: Tuesday, October 7, 2025 11:38 AM
Subject: Relayed: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

David Weeden (david.weeden@mwtribe-nsn.gov)

106review@mwtribe-nsn.gov (106review@mwtribe-nsn.gov)

Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)



Dighton, Br.
D-08-002 bridg...

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A
MASSACHUSETTS HISTORICAL COMMISSION
220 MORRISSEY BOULEVARD
BOSTON, MASS. 02125
617-727-8470, FAX: 617-727-5128

PROJECT NOTIFICATION FORM

Project Name:	Bridge replacement, Bridge D-08-002 (MassDOT #613636)
Location /Address:	Pleasant Street over Muddy Cove
City/Town:	Dighton
Project Proponent	
Name:	Massachusetts Department of Transportation
Address:	10 Park Plaza
City/Town/Zip/Telephone:	Boston, MA 02116 / T: 207-590-4999

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

Agency Name	**Type of License or funding (specify)**
FHWA (lead agency)	Federal earmark funds
US Army Corps of Engineers	Section 404 permit

Project Description (narrative):

The Massachusetts Department of Transportation (MassDOT) proposes to replace Bridge D-08-002 which carries Pleasant Street over Muddy Cove n Dighton. Bridge D-08-002 is a single-span reinforced concrete T-beam bridge constructed in 1914 and rehabilitated in 1949. The superstructure is supported by cast-in-place reinforced concrete counterfort abutments with wingwalls. The bridge has closed-panel reinforced concrete parapet railings. The crossing presently carries two 12' -wide travel lanes, with a 4'-wide shoulder along the west side and a 4’-wide grass berm on the east side.

The proposed work will include full replacement of the bridge on existing alignment with a structure 3' 8" wider than existing. The new structure will consist of a single-span precast concrete NEXT beam superstructure supported by cast-in-place reinforced concrete integral abutments on steel H-pile footings. The bridge will have three-rail painted steel ST-MTL4 railings and will carry two 11' -wide travel lanes with a 7'-wide shoulder on the west side of the bridge, and a 2’-wide shoulder with a 6'-wide sidewalk on the east.

Other work includes full-depth pavement reconstruction within the existing footprint along the bridge approaches, encompassing a total length of 250', including the bridge; pavement reconstruction within the existing footprint along Muddy Cove Lane, extending approximately 80’ toward the west; installation of granite curbing along the east side of the roadway, and HMA berm to the southwest of Muddy Cove Lane; riprap installation adjacent to the bridge abutments to provide scour protection; permanent relocation of two utility poles located to the north of the bridge and relocation of existing overhead utilities that cross Muddy Cove toward a utility pole on the north side of Muddy Cove Lane, to be permanently shifted approximately 40' to the north; in-kind replacement of guardrail along the bridge approaches and along Muddy Cove Lane, including extension of existing guardrail to the southeast of the bridge and relocation of an existing fire hydrant; installation of temporary erosion and sedimentation barrier, and related work.

APPENDIX A (continued)

Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition.
N/A

Does the project include rehabilitation of any existing buildings? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation
N/A

Does the project include new construction? If so, describe (attach plans and elevations if necessary).
Bridge D-08-002 will be demolished and replaced on existing alignment with a slightly wider structure.

To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify.
Review of the National Register of Historic Places revealed that the southern end of the Area of Potential Effects (APE) is located within the National Register-listed **Dighton Wharves Historic District (DIG.D)**. The **Thomas Andrews House/ Old Customs House (DIG.105)** is a contributing property within the historic district located about 160' to the southwest of the bridge. The Thomas Andrews House is a ca. 1770 two-story, five bay side gable Georgian style dwelling, located at 2298 Pleasant Street. The property also includes land situated along the shoreline on Taunton River on the east side of Pleasant Street.

Review of the Inventory of Historic and Archaeological Assets of the Commonwealth revealed that Bridge D-08-002 (DIG.942) is inventoried as part of the Lower Taunton River Area (DIG.H).

A review of the MHC's archaeological maps in Macris Maps revealed three recorded pre-contact sites in the immediate vicinity of the project's APE: 19-BR-102 (Taunton River 3 Site); 19-BR-99 (Taunton River 2/ Russell Philips Site); and 19-BR-289 (Dutra's Farm Site). MassDOT conducted a site visit to the project area on November 1, 2024. Although undisturbed areas near Taunton River are likely to be sensitive for archaeological resources, it is the opinion of the MassDOT Archaeologist that low sensitivity can be ascribed to the project's direct APE based on the impacts of past roadway, bridge, utility, and drainage construction and roadside development. The proposed bridge will be constructed on the same alignment as the existing bridge. Buried utilities within the APE include a 2" diameter gas main and an 8" diameter water main. Soil borings indicate the Pleasant Street approaches were constructed on 8'-15' of fill in order to carry the roadway crossing above the shoreline along Muddy Cove and Taunton River.

What is the total acreage of the project area?

Woodland		acres	Productive Resources:		
Wetland		acres	Agriculture		acres
Floodplain	<1	acres	Forestry		acres
Open Space		acres	Mining/Extraction		acres
Developed	<1	acres	Total Project Acreage	<1	acres

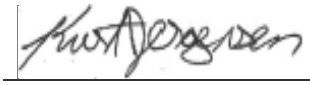
What is the acreage of the proposed new construction? <1 acres

APPENDIX A (continued)

What is the present land use of the project area?
The Project area is situated between a tidal cove and the Taunton River. The bridge is flanked by Muddy Cove to the west, a small public to the northeast, a ca. 1950 ranch to the southwest, and late 18th / early 19th century resources within the NR-listed Dighton Wharves Historic District farther south.

Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location.

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

Signature of person submitting this form:  **Date:** 10/6/2025

Name: Kurt Jergensen

Address: 10 Park Plaza

City/Town/Zip: Boston, MA 02116

Telephone: 207-590-4999

cc: Wampanoag Tribe of Gay Head (Aquinnah) THPO
Mashpee Wampanoag Tribe THPO
BUAR



0 1000 2000 4000 6000

SCALE, FEET

This Image provided by MassGIS is from U.S.G.S. Topographic
7.5 X 15 Minute Series
Somerset, MA Quadrangle, 1985.
Datum is National Geodetic Vertical Datum of 1929 (NGVD29).
Contour Interval is 3 Meters.



MASSACHUSETTS
QUADRANGLE LOCATION

Pleasant Street Over Muddy Cove Bridge No. D-08-002 (3L9) Dighton, MA	GEI Consultants	SITE LOCATION MAP
BETA Group, Inc. Norwood, Massachusetts	Project 2200710	July 2025 Fig. 1

\\geiconsultants.com\data\Data_Storage\Working\BETA GROUP\2200710 Pleasant Street Over Muddy Cove\00_CAD\Figures\GT\2200710-01 slm

Federal Interagency Comment Form

Date: January 26, 2026

Project: Pleasant Street Bridge Replacement

Appl No.: 613636

Commenting Agency: NOAA/NMFS/GARFO/HCD

Action Agency Project Manager: Trevor Burns

Waterway: Taunton River/ Muddy Cove Brook

Activity: Replacement of the existing damaged, deteriorating bridge structure that carries Pleasant St over Muddy Cove Brook to ensure safe travel conditions.

ESSENTIAL FISH HABITAT (EFH)
Project may adversely affect EFH.

ESSENTIAL FISH HABITAT CONSERVATION RECOMMENDATIONS: (Note: EFH CRs require a response from the federal action agency within 30 days of receipt or 10 days before a permit is issued if CRs are not included as a special condition of the permit. In addition, a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for the above EFH determination or EFH conservation recommendations.)

1. No in-water work should be performed from September 1- November 15 of any year unless controls are installed at least one week prior to the start of the TOY window to protect migrating fish species. Install and remove any turbidity controls outside of the TOY window.
2. For activities that require soil erosion, sediment, and turbidity controls;
    a. In tidal waters:
        i. They must not encroach >50% of a tidal stream's width as measured from mean high water.
        ii. They must maintain safe, timely, and effective downstream fish passage throughout the project.

The following BMPs effectively avoid and minimize adverse effects to EFH:

- All work will be conducted in the dry using water controls to dewater the area
- Limits of work have been minimized to the extent feasible
- Work will be conducted from the paved surface of Pleasant St when feasible
- All disturbed areas will be restored to pre-existing conditions post construction
- A soft-start procedure will be utilized for all pile installation
- All piles will be installed using vibratory pile installation
- Turbidity curtains will be installed around dewatering areas and around any additional work areas.
- Flow will be maintained through the center of the work area to avoid impeding fish migration.

- Any in-water work will take place behind turbidity controls.

FISH AND WILDLIFE COORDINATION ACT COMMENTS

The above CRs effectively avoid and minimize adverse effects to NOAA Trust Species covered under FWCA authorities.

ENDANGERED SPECIES

Threatened or endangered species under the jurisdiction of NMFS may be present in the project area. The federal action agency will be responsible for determining whether the proposed action may affect listed species. If they determine that the proposed action may affect a listed species, they should submit their determination of effects, along with justification and a request for concurrence to the attention of the Section 7 Coordinator, NMFS, Greater Atlantic Regional Fisheries Office, Protected Resources Division, 55 Great Republic Drive, Gloucester, MA 01930 or nmfs.gar.esa.section7@noaa.gov. If you have any questions regarding these comments, please contact Roosevelt Mesa (roosevelt.mesa@noaa.gov).

OTHER:

Provide a copy of the permit when issued.

Prepared by: ____Alexa Cacacie_____ date: __1/26/2026_____

From: Burns, Trevor B. (DOT)
To: "Alexa Cacacie - NOAA Federal"
Cc: Paulson, David J. (DOT); christopher.boelke
Subject: RE: MassDOT 613636 Dighton EFH worksheet
Date: Wednesday, January 28, 2026 9:10:00 AM

Thanks Alexa,
Soft starts will be implemented. MassDOT accepts the CRs and other BMPs.

Trevor

From: Alexa Cacacie - NOAA Federal <alexa.cacacie@noaa.gov>
Sent: Wednesday, January 28, 2026 9:08 AM
To: Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us>
Cc: Paulson, David J. (DOT) <David.J.Paulson@dot.state.ma.us>; christopher.boelke <christopher.boelke@noaa.gov>
Subject: Re: MassDOT 613636 Dighton EFH worksheet

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi Trevor,

Thanks for the update. This shouldn't be an issue as long as a soft-start is still implemented.

Best,

Alexa

On Wed, Jan 28, 2026 at 8:49 AM Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us> wrote:

> Hi Alexa,
> We had one clarification we wanted to discuss with you. Under BMPs you listed "All piles will be installed using vibratory pile installation". It is now assumed that the contract will likely have to use impact piles. Do you have any concerns about this?
>
> Trevor
>
> ---
>
> **From:** Alexa Cacacie - NOAA Federal <alexa.cacacie@noaa.gov>

Sent: Monday, January 26, 2026 12:06 PM
To: Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us>
Cc: Paulson, David J. (DOT) <David.J.Paulson@dot.state.ma.us>; christopher.boelke <christopher.boelke@noaa.gov>
Subject: Re: MassDOT 613636 Dighton EFH worksheet

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi Trevor,

Thanks for sending this project along. Attached you can find our interagency comment form containing CRs for the Pleasant St Bridge Replacement. Please let me know if you have any questions.

Best,

Alexa

On Mon, Jan 12, 2026 at 12:48 PM Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us> wrote:

> Thank you!
>
> ---
>
> **From:** Alexa Cacacie - NOAA Federal <alexa.cacacie@noaa.gov>
> **Sent:** Monday, January 12, 2026 12:03 PM
> **To:** Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us>
> **Subject:** Re: MassDOT 613636 Dighton EFH worksheet
>
> CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.
>
> Hi Trevor,
>
> It would be 30 days from when we (NMFS) determined if we have sufficient information for consultation. In this case, it would be the date you submitted the project to us (12/31). Let me know if you have any other questions.

Thanks,

Alexa

On Mon, Jan 12, 2026 at 11:11 AM Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us> wrote:

> Hi Alexa,
> Thank you for acknowledgement. Is the 30 days from our submittal date, or from your acknowledgement email from 1/5?
>
> Trevor
>
> **From:** Alexa Cacacie - NOAA Federal <alexa.cacacie@noaa.gov>
> **Sent:** Monday, January 5, 2026 4:17 PM
> **To:** Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us>
> **Cc:** nmfs.gar.garfo@noaa.gov; Paulson, David J. (DOT) <David.J.Paulson@dot.state.ma.us>; Walker, Courtney L. (DOT) <Courtney.L.Walker@dot.state.ma.us>; Frazier, Greg (DOT) <Greg.Frazier@dot.state.ma.us>; Laura Krause <LKrause@BETA-Inc.com>
> **Subject:** Re: MassDOT 613636 Dighton EFH worksheet
>
> CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.
>
> Hi Trevor,
>
> I hope you had a nice holiday and happy new year! Thanks for passing along, I will take a look and get back to you with any questions. If not, you can anticipate CRs within the next 30 days.
>
> Best,
>
> Alexa
>
> On Wed, Dec 31, 2025 at 10:43 AM Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us> wrote:
>
> > Hi Alexa,
> > MassDOT, on behalf of FHWA, in conjunction with the town of Dighton, is proposing a bridge replacement on Pleasant Street over Muddy Cove Brook. Attached is our EFH worksheet and supporting documents for your review. Please reach out if you have any questions.

Trevor Burns
Wildlife Biologist
Environmental Services
MassDOT Highway Division

--
Alexa Cacacie
Fishery Resource Management Specialist, GARFO
NOAA Fisheries | U.S. Department of Commerce
Office: (978) 281-9294
www.fisheries.noaa.gov

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www.fisheries.noaa.gov

U.S. Department of Homeland Security
United States Coast Guard

Commander
Coast Guard Northeast District

One South Street
Battery Park Building
New York, NY 10004-1466
Staff Symbol: (dpb)
Phone: (703) 728-0092
Email: Christina.D.Sullivan2@uscg.mil

16211
January 30, 2026

Federal Highway Administartion-Massachusetts Division
Attn: Justin Slack, P.E.
220 Binney Street, 9th Floor
Cambridge, MA 02142

Dear Mr. Slack:

This letter is in response to your letter, dated January 12, 2026, invoking 23 U.S.C Section 144(c)(2) for the Pleasant Street Bridge project over Muddy Cove Brook in Dighton, MA. Based upon the information you have provided, we concur that the proposed action is exempt from Coast Guard bridge permit jurisdiction.

Although this project will not require a bridge permit other areas of Coast Guard jurisdiction may apply. The following stipulations must be met:

a. The requirement to display permanent navigation lights at this bridge in accordance with 33 C.F.R 118 is waived. This waiver may be rescinded at any time in the future should the Cost Guard determine that increased nighttime navigation warrants lighting.

b. The work plan and schedule must be forwarded to the Coast Guard for review at least 30 days prior to commencement so that coordination with local stakeholders may be conducted.

c. Any spillage of oil, or oil-based products during the project, must be promptly reported to the Coast Guard by calling the National Response Center at 1-800-424-8802, or Coast Guard Sector Southeastern New England at 1-866-819-9128.

Please do not hesitate to contact Bridge Management Specialist, Christina Sullivan, at 703-728-0092 if you have any questions.

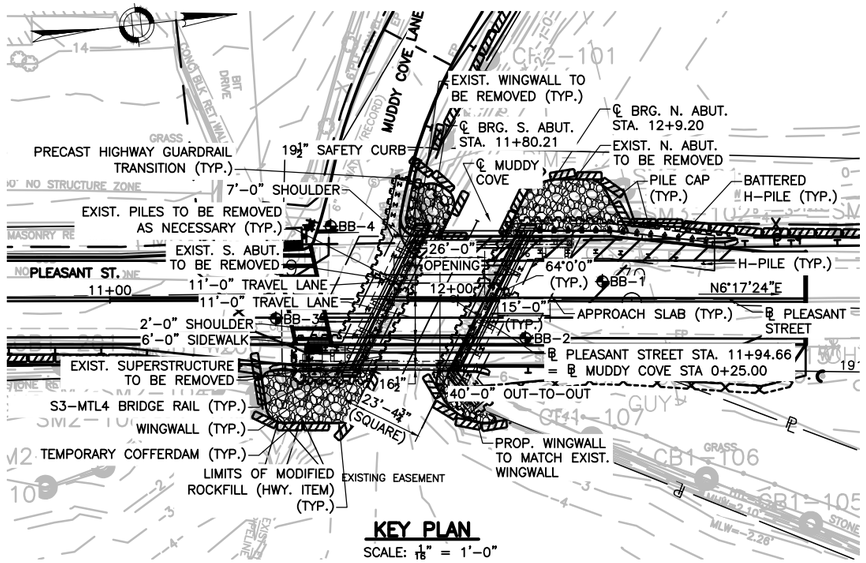
Sincerely,

HITCHEN.GREGORY.P.1010980611

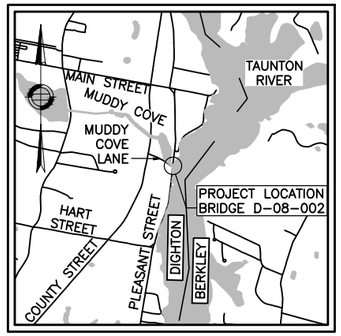
Digitally signed by HITCHEN.GREGORY.P.1010980611
Date: 2026.01.30 14:22:29 -05'00'

G. P. Hitchen
Bridge Program Manager
U.S. Coast Guard
By direction

Copy: Coast Guard Sector Southeastern New England, Waterways Department
Dighton Harbormaster



KEY PLAN
SCALE: 1/16" = 1'-0"



LOCUS
SCALE: 1" = 2000'

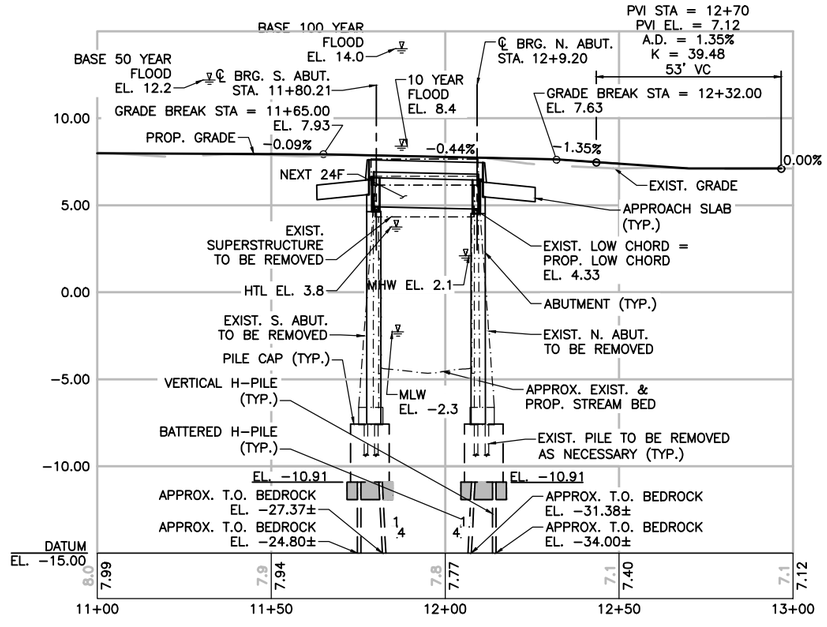
MUNICIPALITY
STREET_NAME-RT#

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	1	7
PROJECT FILE NO.	613636		

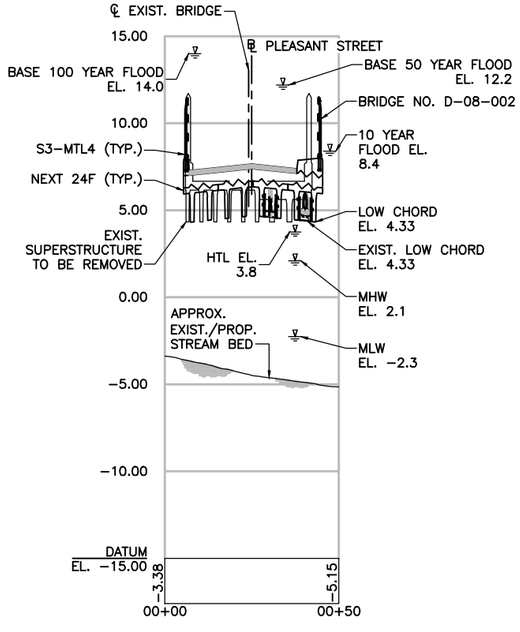
SHEET TITLE

SHEET INDEX

1 TITLE SHEET
2 CONSTRUCTION PLAN
3 GENERAL PLAN & ELEVATION
4 WINGWALL ELEVATIONS
5 DEMOLITION
6 CONSTRUCTION DETAILS
7 IMPACTS PLAN



PLEASANT STREET PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"



MUDDY COVE PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
10 JANUARY 2026
TODD M. WARZECKI
CIVIL ENGINEER
No. 47367
REGISTERED PROFESSIONAL ENGINEER

ISSUED FOR CONSTRUCTION

MassDOT Highway Division

PROJ_DESC
MUNICIPALITY
FACILITY_CARRIED
FEATURE_INTERSECTED

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

STATE BRIDGE ENGINEER

CHIEF ENGINEER

BETA GROUP, INC.
701 GEORGE WASHINGTON HIGHWAY, LINCOLN, RI 02865

SHEET 1 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1)

REVISED ON JANUARY 30, 2026

TITLE PAGE_RECOVER.DWG Plotted on 30-Jan-2026 11:08 AM

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 21+01 (MEET EXIST) TO 20+67 RT (MUDDY COVE LN)
TRANSITION TO BRIDGE RAIL STA 20+67 TO 20+33 LT
BRIDGE S3-TL4 GUARDRAIL STA 20+33 TO 12+77 LT
(MUDDY COVE LN AFTER 20+33 AND PLEASANT STREET AFTER 12+73)
TRANSITION TO BRIDGE RAIL STA 12+73 TO 13+07 LT
TRANSITION TO NCHRP 350 GUARDRAIL STA 13+07 TO 13+41 LT (MEET EXIST)

TANGENT END TREATMENT - TL-3 STA 10+00 TO 10+25 RT
GUARDRAIL - TL-3 (SINGLE FACED, DEEP POSTS) STA 10+25 TO 11+17 RT
TRANSITION TO BRIDGE RAIL STA 11+17 TO 11+51RT
BRIDGE S3-TL4 GUARDRAIL STA 11+51 TO 12+05 RT
TRANSITION TO BRIDGE RAIL STA 12+05 TO 12+39 RT
TRAILING ANCHORAGE STA 12+39 TO 12+49 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE UTILITY PLAN

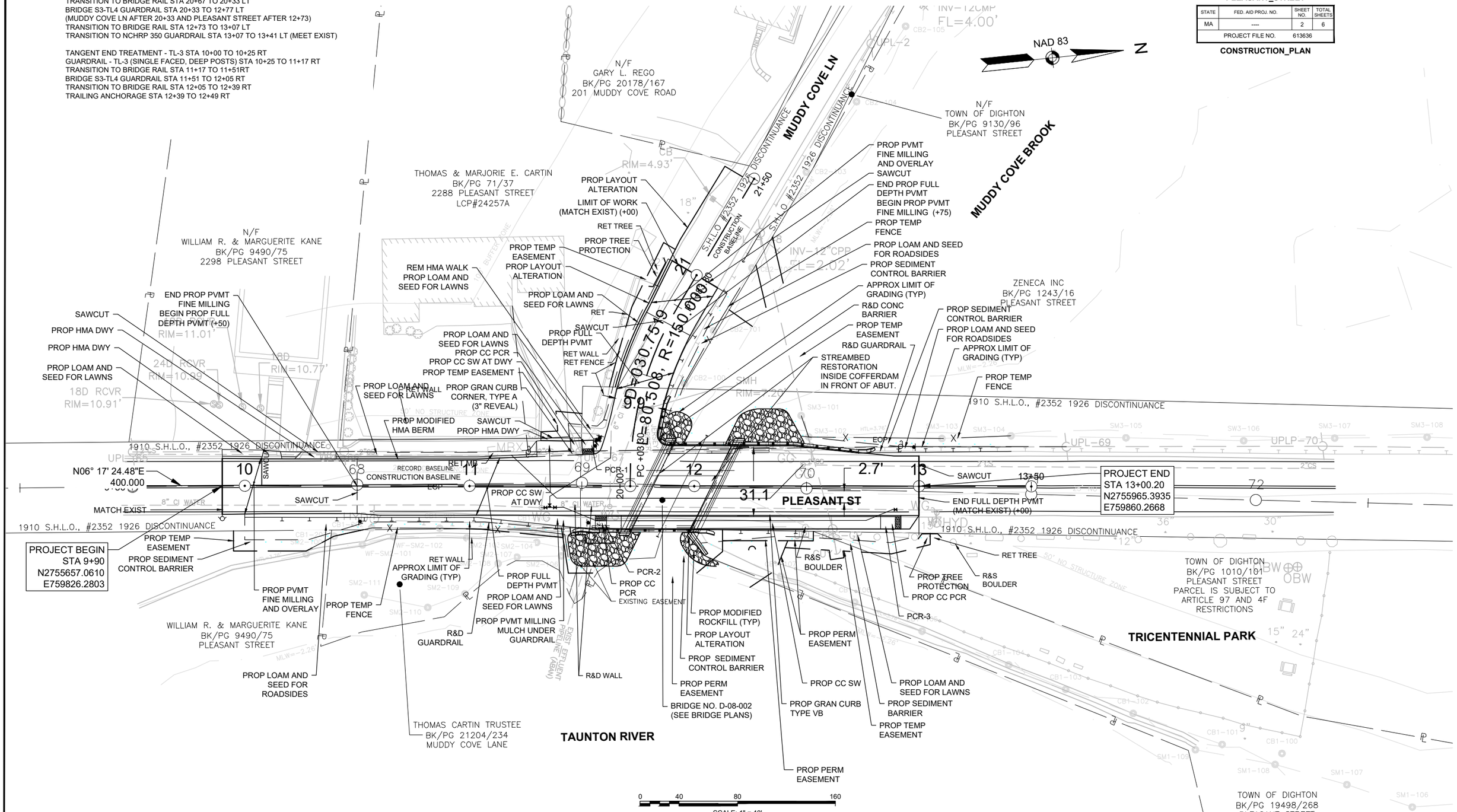
DRAINAGE DETAILS

NONE

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	2	6
PROJECT FILE NO.	613636		

CONSTRUCTION_PLAN



DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	3A	6
PROJECT FILE NO.	613636		

GENERAL PLAN & ELEVATION 3A

Plotted on 14-Jan-2026 10:55 AM
GEN PLAN AND ELEVATION.DWG

CB2–100
SMH
RIM=7.20'
SM3–101
EXIST. 6"ø WATER
EXIST. SEWER (ABANDONED)
MUDDY COVE LANE
23'–0"
RAILING R = 5'–0" SHALL BE INDIVIDUALLY FABRICATED WITH STEEL PLATES BUTT WELDED AND GROUND SMOOTH
BB–4
RELOCATED OHW (BY OTHERS)
EXIST. 2"ø GAS
RELOCATED UTILITY POLE (BY OTHERS)
6"ø WATER
APPROACH SLAB (TYP.)
EXIST. PILES TO BE REMOVED AS NECESSARY (TYP.)
WP 1
EXIST. S. ABUT. TO BE REMOVED
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
REMOVABLE PANEL FOR RELOCATED 2"ø GAS (TYP.)
BB–3
EXIST. SUPERSTRUCTURE TO BE REMOVED
TEMPORARY COFFERDAM (TYP.)
C.I.P. HIGHWAY RAIL TRANSITION
WINGWALL (TYP.)
2'–6"
(2) SPACES @ 5'–8" = 11'–4"
SM2–105
SM2–106
2'–6"
(3) SPACES @ 5'–0" = 15'–0"
EXIST. WINGWALL TO BE REMOVED (TYP.)
℄ BRG. S. ABUT. STA. 11+80.21
℄ MUDDY COVE
19½" SAFETY CURB
7'–0" SHOULDER
11'–0" TRAVEL LANE
40'–0" OUT–TO–OUT
12'–7¾" PHASE 2 WORK (SEE SHEET 6 FOR DETAILS)
20'–0"
26'–0" OPENING (SKEWED)
12+00
2'–0" SHOULDER
6'–0" SDWK.
27'–4¼" PHASE 1 WORK (SEE SHEET 6 FOR DETAILS)
22'–0"
21'–9⅝"
16½"
S3–MTL4 BRIDGE RAIL (TYP.)
(4) SPACES @ 6'–6" = 26'–0"
4'–2⅝"
23'–4¾" OPENING (SQUARE)
LIMITS OF MODIFIED ROCKFILL (HWY ITEM) (TYP.)
℄ BRG. N. ABUT. STA. 12+9.20
(10) SPACES @ 6'–6" = 65'–0"
173°29'25"
20'–0"
19'–9¾"
EXIST. N. ABUT. TO BE REMOVED
PILE CAP (TYP.)
64'0"0" (TYP.)
15'–0" (TYP.)
WP 2
℄ PLEASANT STREET STA. 11+94.66 = ℄ MUDDY COVE STA 0+25.00
BB–2
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
PARAFFIN JOINT SPACING
POST SPACING
PROP. WINGWALL TO MATCH EXIST. WINGWALL
℄ PLEASANT STREET
N6°17'24"E
BB–1
VERTICAL H–PILE (TYP.)
BATTERED H–PILE (TYP.)
(3) SPACES @ 5'–0" = 15'–0"
3'–7"
POST SPACING
20'–2¼"
PARAFFIN JOINT SPACING
2"ø GAS (BY OTHERS)
8"ø WATER
PRECAST HIGHWAY GUARDRAIL TRANSITION (TYP.)
PERMANENT EASEMENT
TEMPORARY EASEMENT
3
N: 2755884.185'
E: 759872.469'
EL: 6.642'
SPIKE
CB1–107
MEAN LOW WATER (ELEV. = –2.62')

GENERAL PLAN
SCALE: 3/16" = 1'–0"

###########	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

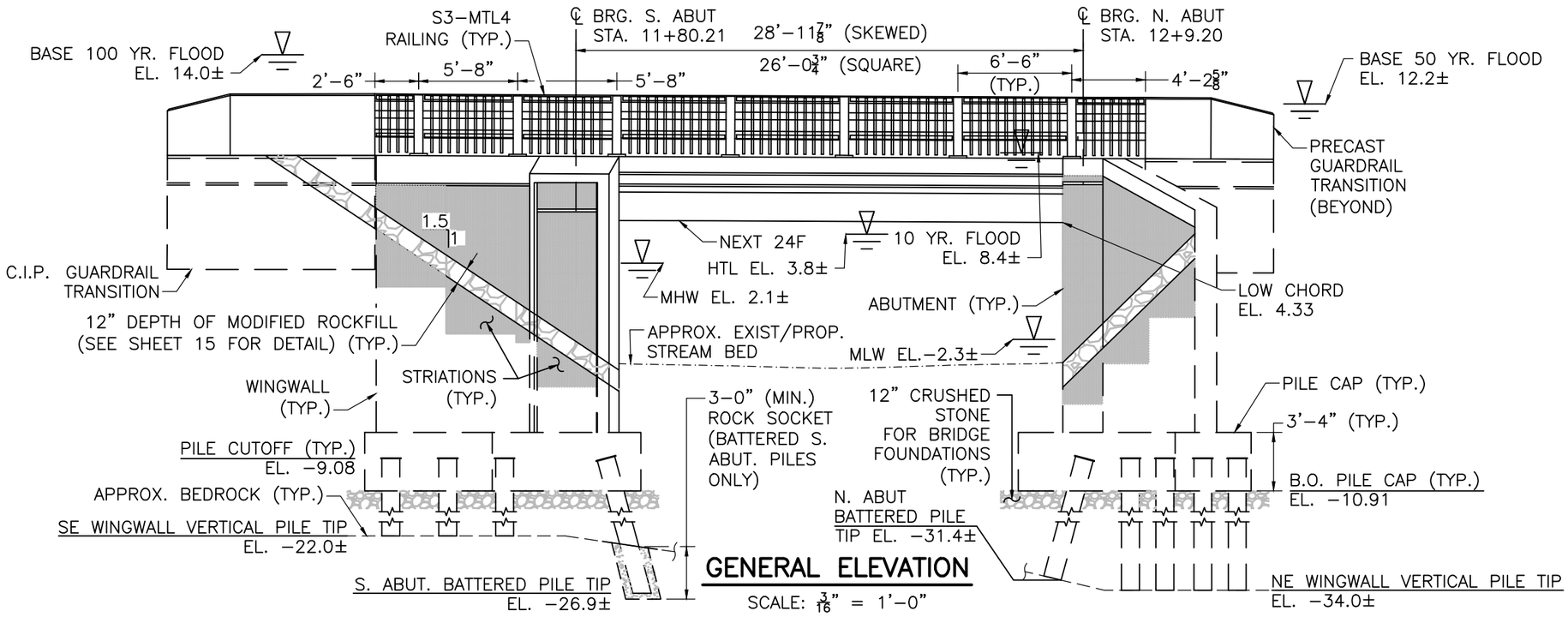
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

SHEET 3A OF 7 SHEETS BRIDGE NO. D–08–002 (CV1)

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-----	3B	7
PROJECT FILE NO.		613636	

GENERAL PLAN & ELEVATION 3B



GENERAL ELEVATION

SCALE: $\frac{3}{16}$" = 1'–0"

########## #	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

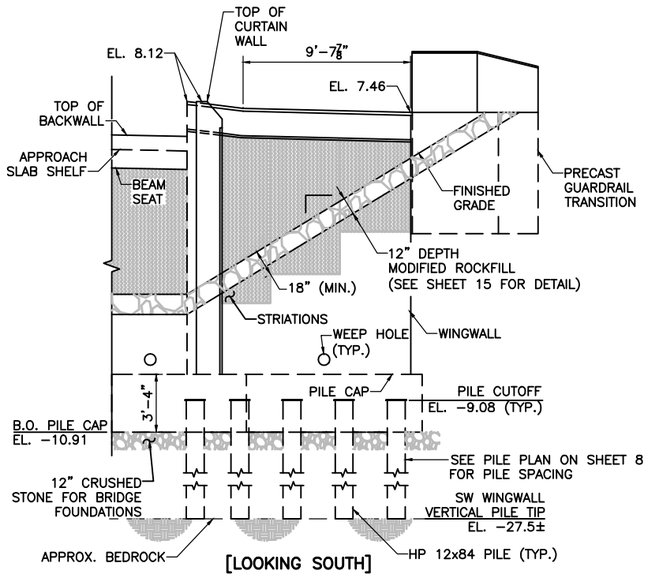
SHEET 3B OF 7 SHEETS BRIDGE NO. D–08–002 (CV1)

GEN PLAN AND ELEVATION.DWG Plotted on 9-Dec-2025 11:16 AM

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	4	7
PROJECT FILE NO.	613636		

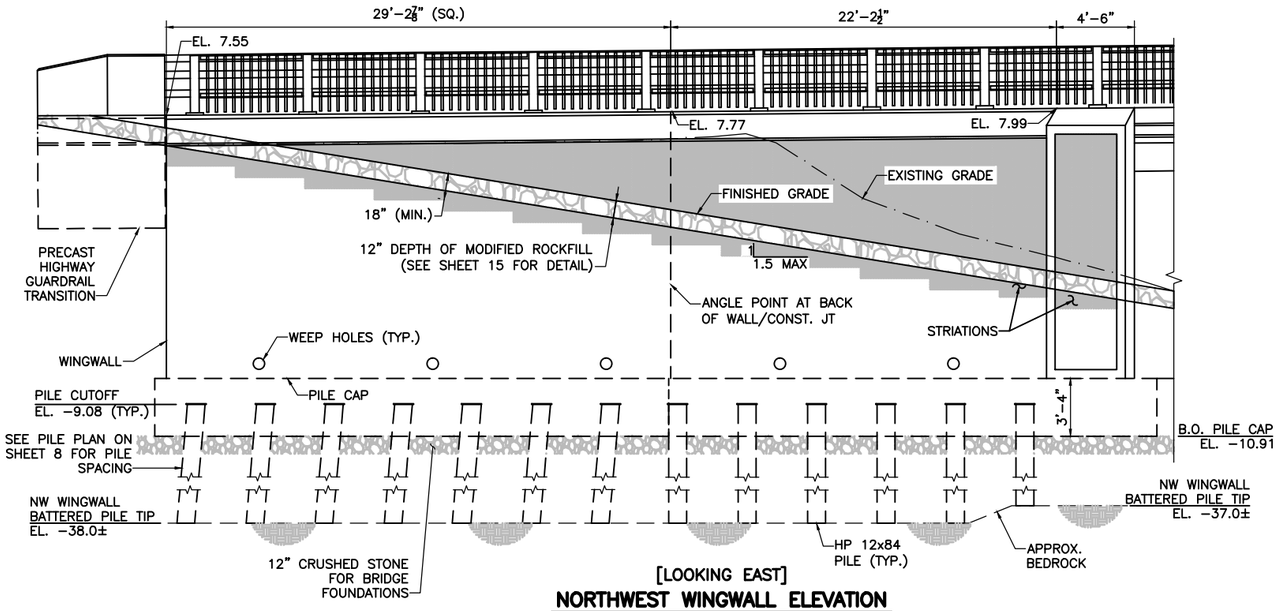
WINGWALL ELEVATIONS



[LOOKING SOUTH]

SOUTHWEST WINGWALL ELEVATION

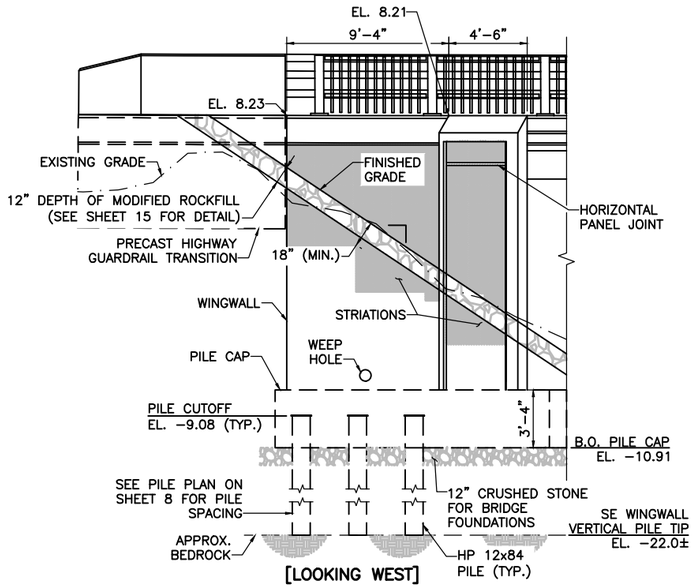
SCALE: ¼" = 1'-0"



[LOOKING EAST]

NORTHWEST WINGWALL ELEVATION

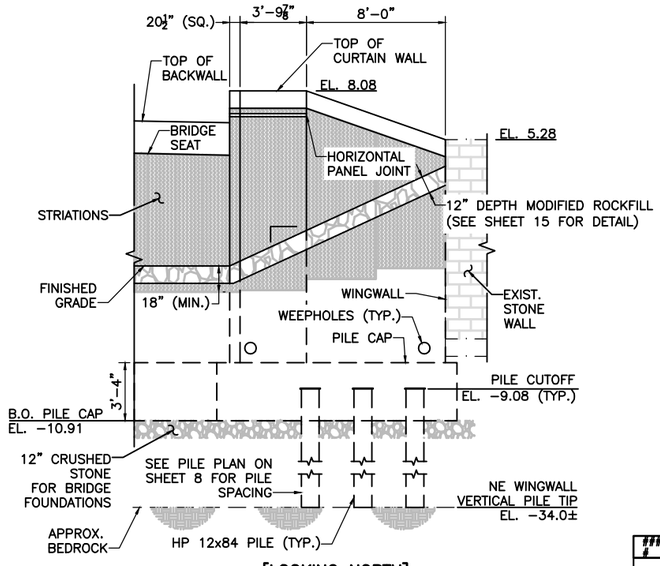
SCALE: ¼" = 1'-0"



[LOOKING WEST]

SOUTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"



[LOOKING NORTH]

NORTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"

#	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

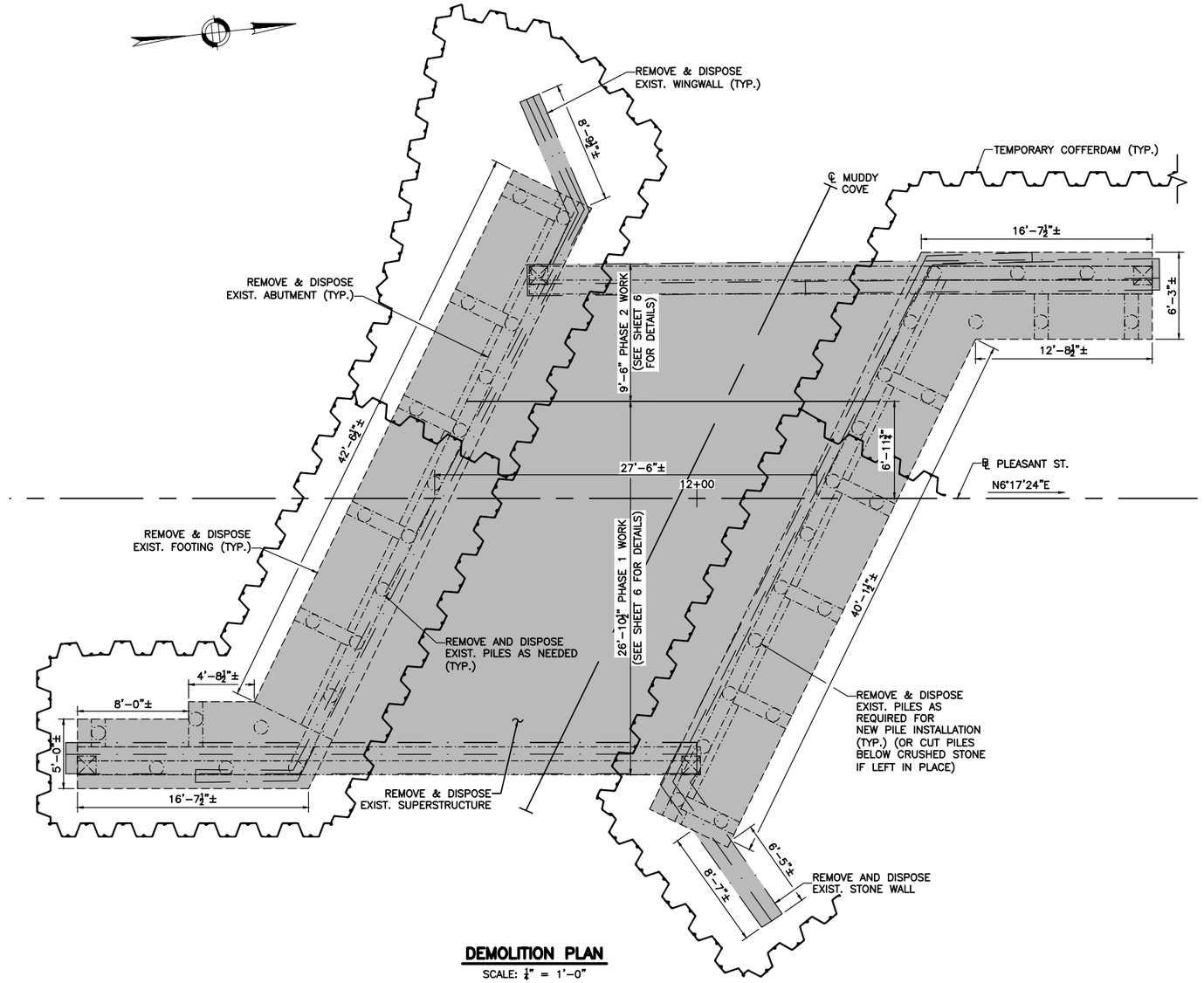
WINGWALL ELEVATIONS.DWG Plotted on 9-Dec-2025 11:07 AM

DIGHTON
PLEASANT_STREET

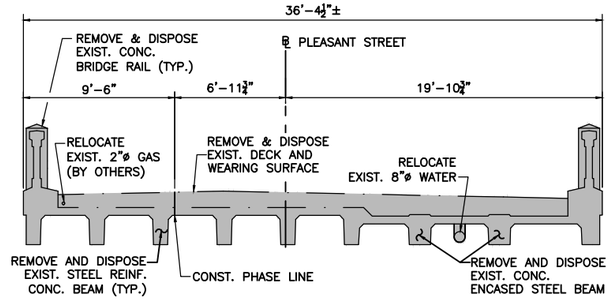
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	5	7
PROJECT FILE NO.	613636		

DEMOLITION

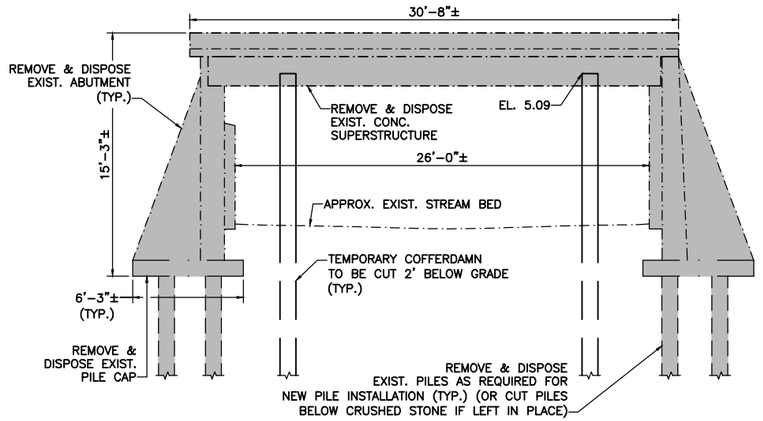
NOTES:
1. TEMPORARY COFFERDAM TO BE PUT IN PLACE ONCE EXISTING SUPERSTRUCTURE IS REMOVED



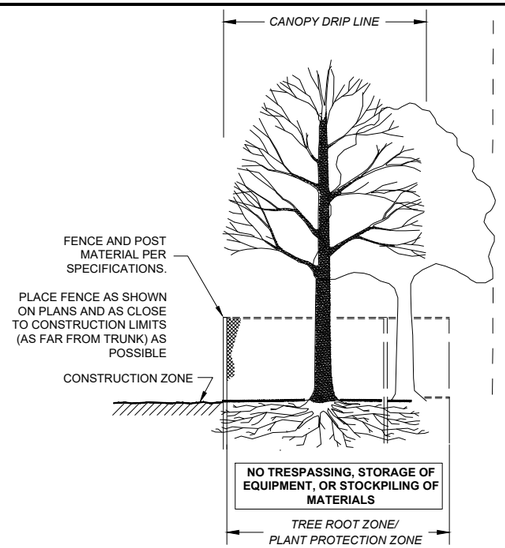
DEMOLITION PLAN
SCALE: ¼" = 1'-0"



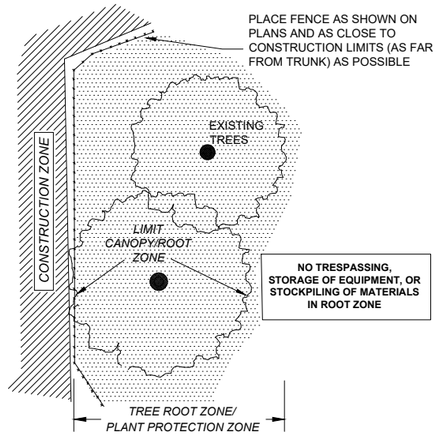
DEMOLITION CROSS SECTION
SCALE: ¼" = 1'-0"



DEMOLITION LONGITUDINAL SECTION
SCALE: ¼" = 1'-0"

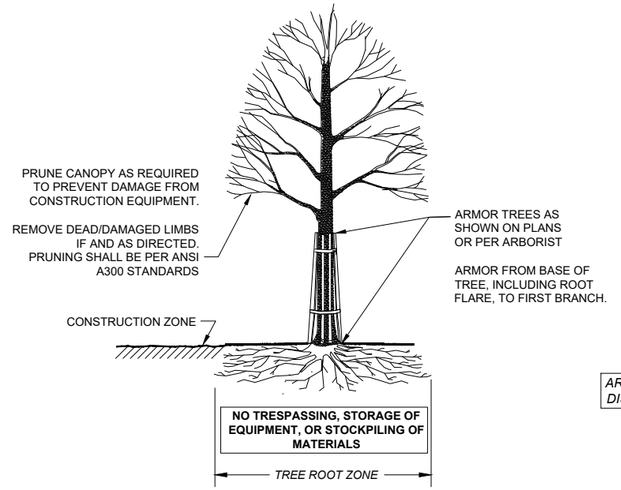


SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - ROOT ZONE
NOT TO SCALE



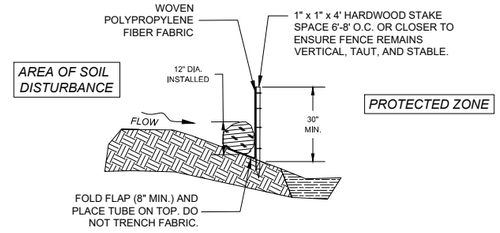
SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - TRUNK
NOT TO SCALE

DIGHTON
PLEASANT_STREET

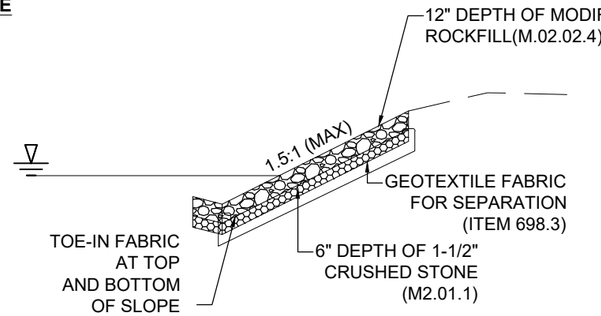
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	6	7
PROJECT FILE NO.	613636		

CONSTRUCTION DETAILS

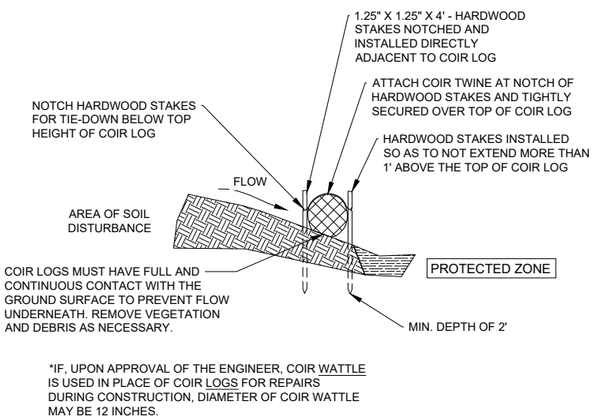


SECTION

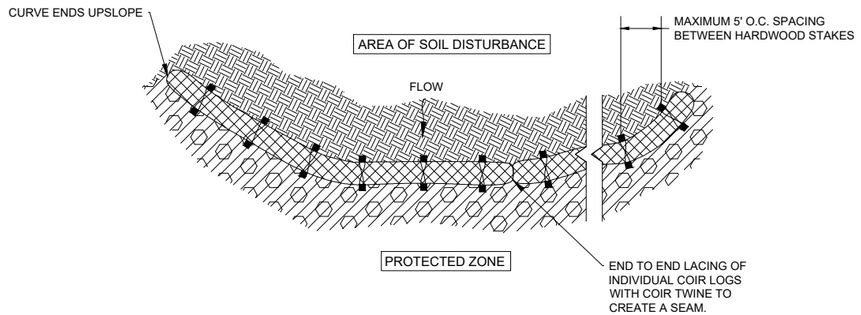
COMPOST FILTER TUBE & SILT FENCE
NOT TO SCALE



MODIFIED ROCKFILL
NOT TO SCALE

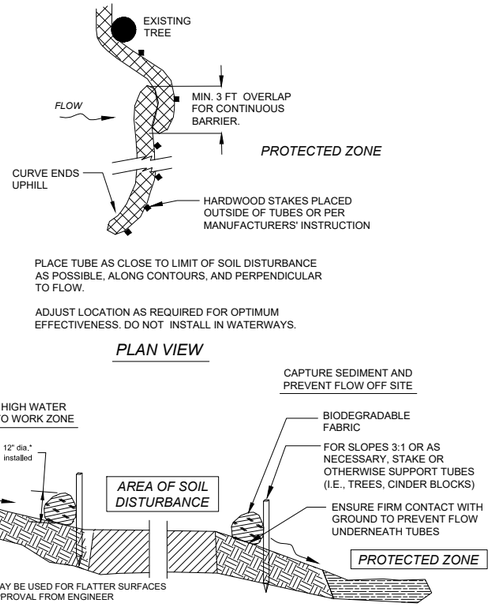


SECTION

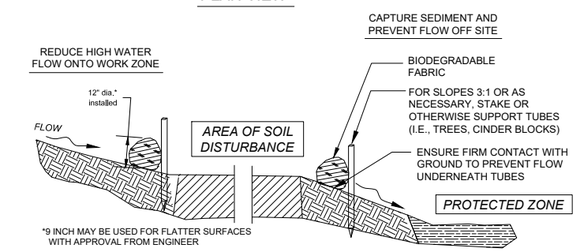


PLAN VIEW

SEDIMENT BARRIER - COIR LOG
NOT TO SCALE



PLAN VIEW



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE
NOT TO SCALE

CONSTRUCTION DETAILS.DWG Plotted on 19-Jan-2026 1:49 PM

DIGHTON
PLEASANT/STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	7	7
PROJECT FILE NO.	613636		

PLAN_TITLE

IMPACT LEGEND AND SUMMARY

HATCH	DESCRIPTION	AREA
	TEMPORARY IMPACT TIDAL WATERS OF THE US (TWOTUS)*	545± SF
	*DREDGING COINCIDENT WITH TEMPORARY TWOTUS IMPACTS	98.2± CY
	PERMANENT IMPACT TIDAL WATERS OF THE US (TWOTUS)	941± SF
	PERMANENT IMPACT HIGH-TIDE LINE (HTL)	109± LF
	TEMPORARY IMPACT HIGH-TIDE LINE (HTL)	102± LF
	SEDIMENT CONTROL	
	SNOW FENCING FOR ADDITIONAL SALT MARSH PROTECTION	

* TIDAL WATERS OF THE US

NOTES:

1. 100-YEAR FLOODPLAIN BOUNDARIES FROM FEMA FIRM PANELS 25005C0253H AND 25005C021G, DATED JULY 16, 2015 AND JULY 16, 2014, RESPECTIVELY. BASE FLOOD ELEVATION (BFE) ONSITE IS 14 FEET AND THE SITE IS SITUATED ENTIRELY WITHIN THE FLOODZONE.
2. WETLAND RESOURCE AREAS LOCATED ON APRIL 20, 2025 BY BETA GROUP, INC AS SHOWN ON THESE PLANS.

NAD 83

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

N/F
TOWN OF DIGHTON
BK/PG 9130/96
PLEASANT STREET

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

MUDDY COVE LN

MUDDY COVE BROOK

FLOW
EBB

1910 S.H.L.O., #2352 1926 DISCONTINUANCE

CONSTRUCTION BASELINE

RECORD BASELINE

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

N06° 17' 24.48"E
400.000

PROJECT BEGIN
STA 13+00
N2755965.1947
E759860.2449

PLEASANT ST

TRICENTENNIAL PARK

TAUNTON RIVER

EXISTING EASEMENT

EXIST EFFLUENT PIPELINE (ABAN)

DREDGING = 98.2± CY

SNOW FENCING FOR ADDITIONAL SALT MARSH PROTECTIONS

TOWN OF DIGHTON
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TOWN OF DIGHTON
BK/PG 19498/268
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F

THOMAS CARTIN TRUSTEE
BK/PG 21204/234
MUDDY COVE LANE

WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
PLEASANT STREET

SCALE: 1" = 40'

SHEET 7 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1

613636_HDI(IMPACT PLAN)_UPDATE.DWG Plotted on 30-Jan-2026 11:03 AM

IMPROVING COMMUNITIES TOGETHER

MEMORANDUM

Date:	March 31, 2026	Job No.:	22.10326.16
To:	Kevin Newton (USACE) National Park Service (NPS)		
Cc:	Courtney Walker (MassDOT) Greg Frazier (MassDOT) Heidi Davis (MassDEP) Tyler Lewis (MassDEP) Ryan Hale (MassDEP) Todd Warzecki (BETA) Matt Shute (BETA) Dan Vasconcelos (USACE)		
From:	Laura Krause, Associate (BETA) Tyler Drew, Scientist (BETA)		
Subject:	**Pleasant Street Bridge Replacement Project Pre-Construction Notification (NAE-2025-02456) Inter-agency Coordination**		

INTRODUCTION

The purpose of this memorandum is to provide responses to comments provided by Kevin Newton (USACE) and the National Park Service (NPS) received via email on March 10, 2026, associated with the Pre-Construction Notification for the Pleasant Street Bridge over Muddy Cove Brook Replacement Project in Dighton, Massachusetts. The comments provided by NPS are quoted below in *italics*, with BETA's responses provided in **bold**.

COMMENTS

1. *The plans mention restoration of disturbed streambed will consist of placement of riprap stone to replace the stone removed during construction along the abutments. Will this match existing bed conditions and elevation beneath bridge?*

   BETA: Proposed streambed restoration will consist of installation of gravel borrow topped with up to 24" of streambed restoration material. This material will match the composition of existing streambed material and will be placed at varying depths to match existing streambed elevations. No riprap stone is proposed beneath the bridge or along the abutment. Modified rockfill is only proposed along the wingwalls for slope stabilization. No riprap is proposed.

2. *The plans state that in-water work will consist of reestablishing the existing modified rock fill at all four bridge quadrants. Will the new rock fill match existing conditions such as stone size, color, etc?*

   BETA: The proposed modified rock fill will consist of angular stones that are 4" to 8" in size. This is consistent with the rock fill that is currently present at the Site. The proposed rock fill may be slightly more grey in color when initially installed, but over time weathering will wear the stones so they resemble the existing stones.

3. *Why not move the north abutments to increase hydraulic capacity?*

   BETA: Widening of the hydraulic opening was considered while designing the proposed structure; however, it was determined to be infeasible. Due to the constrained roadway right-

of-way, widening the stream crossing to the north would require permanent impacts to the adjacent Salt Marsh to the northwest and to Tricentennial Park, protected Article 97 land, to the northeast.

The potential benefits of increasing the hydraulic capacity through the bridge are also limited due to its location. The entire Site is also located below the flood elevation of the 10-year storm; therefore, increasing the hydraulic opening would not alleviate flooding from storm events. Increasing the hydraulic capacity of the bridge provides a limited benefit, while requiring permanent loss of Salt Marsh and Article 97 Land; therefore, it was decided to install the proposed abutments in the location of the existing structure.

4. *NPS's preference would be to fully remove the sheet metal cofferdam rather than cutting it below mudline. Is there a reason that can't be done?*

   BETA: MassDOT requires metal sheet piles adjacent to new footings to be cut and remain in place. This requirement is necessary to maintain structural integrity of the new footings. Removal of the sheeting could shift or crack the new structure.

5. *There is local, anecdotal evidence of diamondback terrapin nesting in muddy cove (from the Taunton River Watershed Alliance). According to MassWildlife NHESP, diamondback terrapin nest from approximately June through mid-July. Nest incubation periods in Massachusetts range from 59-116 days, depending on temperature. After hatching, young turtles may delay their egress for several days, and terrapin hatchlings are known to remain on land for extended periods following emergence (they do not move directly to the marsh). Would you consider using turtle barrier fencing and/or consulting with MassWildlife before beginning construction?*

   BETA: In coordination with the Massachusetts Division of Fisheries and Wildlife (Division), MassDOT has elected to implement a diamondback terrapin protection plan. The plan will cover construction-related activities and will be implemented by a Division approved biologist.

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DOCUMENT A00833

ARMY CORPS OF ENGINEERS

PERMIT VERIFICATION

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT OFFICE
696 VIRGINIA ROAD
CONCORD, MA 01742

June 1, 2026

Regulatory Division
Regulatory File No. NAE-2025-02456

Courtney Walker
Massachusetts Department of Transportation
10 Park Plaza, Suite 7360
Boston, Massachusetts 02116
Via Email: Courtney.l.walker@dot.state.ma.us

Ralph Vitacco
Town of Dighton
979 Somerset Avenue
Dighton, Massachusetts 02715
Via Email: rvitacco@dighton-ma.gov

Dear Courtney Walker and Ralph Vitacco:

The U.S. Army Corps of Engineers (USACE) has reviewed your request to discharge fill material in waters of the U.S. associated with the replacement of the bridge conveying Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts at Latitude 41. 8096 N and Longitude -71.1197 W. The proposed regulated activities associated with this project are detailed on the attached drawings titled, “PROJ_DESC MUNICIPALITY FACILITY_CARRIED FEATURE_INTERSECTED MASSACHUSETTS DEPARTMENT OF TRANSPORATION HIGHWAY DIVISION 1 PARK PLAZA BOSTON, MASS,” on eight sheets dated January 30, 2026.

There will be a permanent discharge of fill material into 0.02 acre (941 square feet) below the high tide line (HTL) of Muddy Cove Brook associated with the replacement of the bridge conveying Pleasant Street and installation of scour protection. Additionally, there will be temporary discharge of fill material within 0.01 acre (545 square feet) below the HTL of Muddy Cove Brook associated with temporary dewatering. Based on the information provided, the Corps has verified that the proposed actions are authorized under Nationwide Permit (NWP) NWP 14, Linear Transportation Projects, pursuant to authorities under Section 404 of the Clean Water Act (33 U.S.C. § 1344). You must ensure the proposed work is performed in accordance with the enclosed applicable terms and conditions.

Special Conditions

In addition, this verification is subject to the following special conditions.

1. The permittee shall complete and return the enclosed Completion Certification Form to this office at least one month following the completion of the authorized work.

2. All construction shall be completed in accordance with the limits of construction and construction sequences detailed on the enclosed plans titled “PROJ_DESC MUNICIPALITY FACILITY_CARRIED FEATURE_INTERSECTED MASSACHUSETTS DEPARTMENT OF TRANSPORATION HIGHWAY DIVISION 1 PARK PLAZA BOSTON, MASS,” on eight sheets dated January 30, 2026. If there are changes to the plans or construction methods for work within or adjacent to waters of the U.S., the permittee shall contact USACE to discuss modification of this authorization. USACE must approve any changes before they are undertaken.

3. All in-water work shall be conducted in the dry using appropriate water controls.

4. In-water construction shall not occur between March 15 and June 30 of any year(s).

5. In-water construction shall not occur between September 1 and November 15 of any year(s). However, in-water work may proceed during this time if a Water Control/Diversion Plan is developed and submitted to Massachusetts Department of Marine Fisheries (MA DMF) by the proponent for review, comments, and approval and the cofferdams are installed before September 1st. Plans should be submitted to Brad Chase (brad.chase@mass.gov) and Stephanie Berkman (Stephanie.Berkman@mass.gov).

6. No herbicides shall be used within wetland areas. Details of proposed herbicidal treatments shall be provided to MA DMF for review and comment if herbicide treatment is proposed within wetlands.

7. A soft-start procedure shall be utilized for all pile installation.

8. Turbidity curtains shall be installed around dewatering areas and around any additional work areas.

9. Dewatering pumps shall include a two-part screen designed to limit entrainment and entrapment of sensitive diadromous fish species that may be present during the construction period. Any diadromous fish observed within the dewatered area shall be removed and relocated to the water. Hand nets should be kept onsite, and any fish relocation reported to the Massachusetts Division of Marine Fisheries.

10. Flow shall be maintained through the center of the in-water work area to avoid impeding fish migration.

11. Any in-water work shall take place behind turbidity controls.

12. The National Park Service issued a Wild & Scenic Rivers Act Section 7 Determination with specific avoidance and minimization measures and actions cited as necessary to prevent a “direct and adverse” effect on the Taunton River. You must comply with the conditions specified in the attached Section 7 Determination from the National Park Service.

13. A conditioned Water Quality Certification (WQC) has been issued by the Massachusetts Department of Environmental Protection for your project and is attached. You must comply with the conditions specified in the WQC.

A change in location or project plans may require re-evaluation of your project. Proposed changes should be coordinated with this office prior to construction. Failure to comply with all terms and conditions of these permits (NWP) invalidates this authorization and could result in a violation of Section 301 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899. You must also obtain all local, state, Tribal, and other Federal permits that apply to this project.

Water Quality Certification (WQC) and Coastal Zone Management Act (CZM)

The Commonwealth of Massachusetts issued a conditioned individual Water Quality Certificate decision for your project (enclosed). You must comply with the conditions specified in the WQC decision for this NWP authorization to be valid.

The Commonwealth of Massachusetts issued a conditioned CZM decision for NWP 14, Linear Transportation Projects (enclosed). You must comply with the conditions specified in the CZM decision for this NWP authorization to be valid.

Permit Expiration

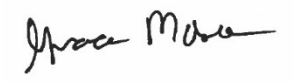
The Corps verification of this NWP authorization is valid until March 14, 2031, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work for the NWP authorization has not been completed by that date and you have commenced or are under contract to commence this activity before March 14, 2031, you will have until March 14, 2032, to complete the activity under the enclosed terms and conditions of this NWP.

Contact Information

If you have any questions, please contact Kevin Newton at 978-318-8044, or by email at kevin.m.newton@usace.army.mil. To better serve you, please complete the

Customer Service Survey located at: https://regulatory.ops.usace.army.mil/customer-service-survey/.

Sincerely,



Grace Moses
Chief, Technical Support Branch
Regulatory Division

Enclosures:
Project Plans
Compliance Certification Form
Water Quality Certification
National Park Service Wild & Scenic Rivers Act Section 7 Determination Letter
NWP 14, Linear Transportation Projects and General/Regional Conditions

cc (w/enclosures):
Heidi Davis, MassDEP (via Heidi.davis@mass.gov)
Ryan Hale, MassDEP (via ryan.hale@mass.gov)
Tyler Lewis, MassDEP (via tyler.lewis@mass.gov)
Jaime Ianelli, MassDEP (via Jaime.ianelli@mass.gov)
Haley Miller, US EPA (via miller.haley@epa.gov)
Laura Krause, BETA (via lkrause@beta-inc.com)

U.S. Army Corps of Engineers (USACE)

CERTIFICATION OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT

For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.

Form Approved - OMB No. 0710-0003 Expires 2027-10-31

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0003, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PURPOSE: This form is used by recipients of U.S. Army Corps of Engineer Regulatory permits to certify compliance with the permit terms and conditions.

Your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the U.S. Army Corps of Engineers, New England District Office.

The certification can be submitted by email at cenae-r-tu@usace.army.mil or by mail at the below address:

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the U.S. Army Corps of Engineers, New England District Office.

U.S. Army Corps of Engineers
New England District
Regulatory Division
696 Virginia Road
Concord, MA 01742-2751

COMPLETED BY THE CORPS

Corps Action Number:	NAE-2025-02456
Permit Type:	Nationwide Permit 14 of the 2026 NWPs
General Permit Number and Name (*if applicable*):	
Name of Permittee:	MassDOT and Town of Dighton
Project Name:	Pleasant Street Bridge over Muddy Cove Brook
Project Location (*physical address*):	latitude 41.8096 and longitude -71.1197 Dighton, MA

PERMITTEE'S CERTIFICATION

Date Work Started: _____

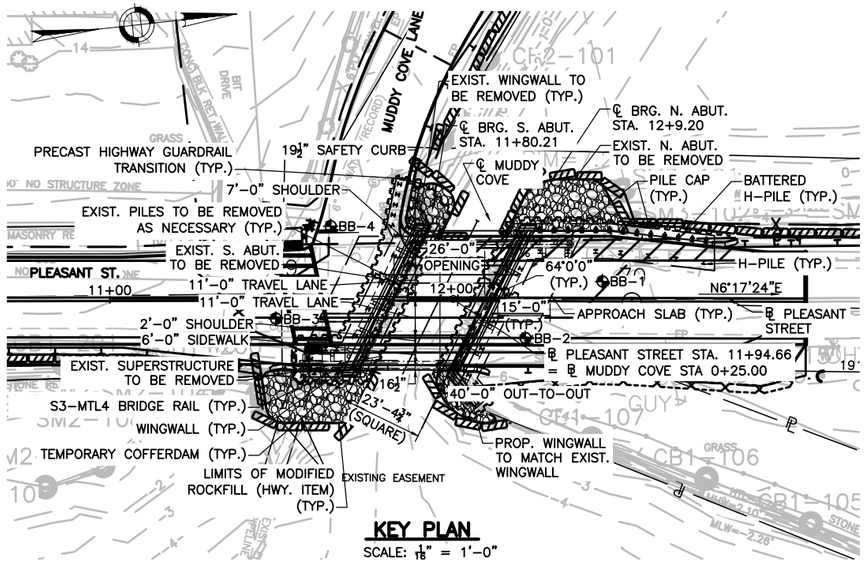
Date Work Completed: _____

Enclose photographs showing the completed project (*if available*).

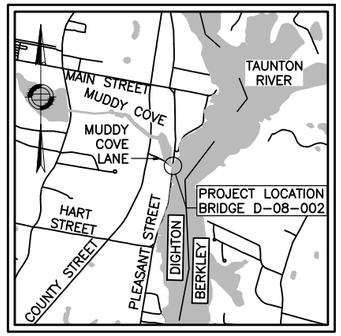
I _____ hereby certify that the work authorized by the above referenced permit has been completed in accordance with all of the permit terms and conditions, and that any required compensatory mitigation has been completed in accordance with the permit conditions.

Name	Date	Signature

ENG FORM 6285, DEC 2024 PREVIOUS EDITIONS ARE OBSOLETE.



KEY PLAN
SCALE: 1/16" = 1'-0"



LOCUS
SCALE: 1" = 2000'

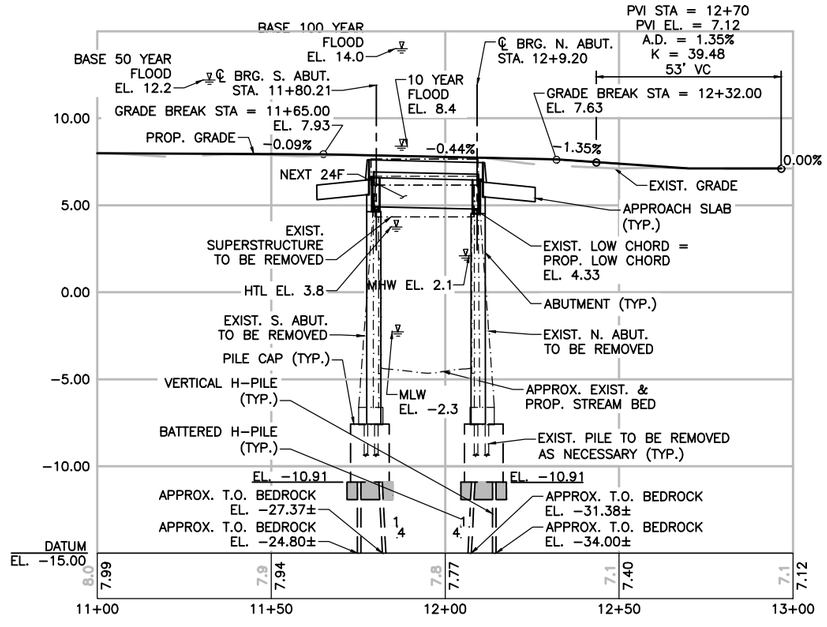
MUNICIPALITY
STREET_NAME-RT#

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	1	7
PROJECT FILE NO.	613636		

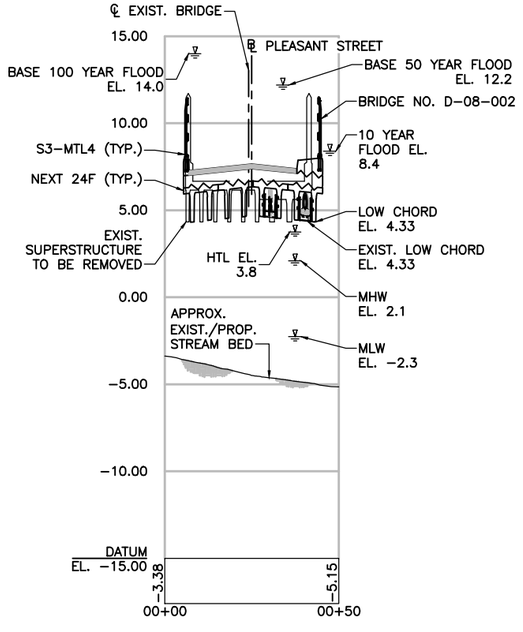
SHEET TITLE

SHEET INDEX

1 TITLE SHEET
2 CONSTRUCTION PLAN
3 GENERAL PLAN & ELEVATION
4 WINGWALL ELEVATIONS
5 DEMOLITION
6 CONSTRUCTION DETAILS
7 IMPACTS PLAN



PLEASANT STREET PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"



MUDDY COVE PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
10 JANUARY 2026
TODD M. WARZECKI
CIVIL ENGINEER
No. 47367
REGISTERED PROFESSIONAL ENGINEER

ISSUED FOR CONSTRUCTION

MassDOT Highway Division

PROJ_DESC
MUNICIPALITY
FACILITY_CARRIED
FEATURE_INTERSECTED

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

STATE BRIDGE ENGINEER

CHIEF ENGINEER

BETA GROUP, INC.
701 GEORGE WASHINGTON HIGHWAY, LINCOLN, RI 02865

SHEET 1 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1)

REVISED ON JANUARY 30, 2026

TITLE PAGE_RECOVER.DWG Plotted on 30-Jan-2026 11:08 AM

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 21+01 (MEET EXIST) TO 20+67 RT (MUDDY COVE LN)
TRANSITION TO BRIDGE RAIL STA 20+67 TO 20+33 LT
BRIDGE S3-TL4 GUARDRAIL STA 20+33 TO 12+77 LT
(MUDDY COVE LN AFTER 20+33 AND PLEASANT STREET AFTER 12+73)
TRANSITION TO BRIDGE RAIL STA 12+73 TO 13+07 LT
TRANSITION TO NCHRP 350 GUARDRAIL STA 13+07 TO 13+41 LT (MEET EXIST)

TANGENT END TREATMENT - TL-3 STA 10+00 TO 10+25 RT
GUARDRAIL - TL-3 (SINGLE FACED, DEEP POSTS) STA 10+25 TO 11+17 RT
TRANSITION TO BRIDGE RAIL STA 11+17 TO 11+51RT
BRIDGE S3-TL4 GUARDRAIL STA 11+51 TO 12+05 RT
TRANSITION TO BRIDGE RAIL STA 12+05 TO 12+39 RT
TRAILING ANCHORAGE STA 12+39 TO 12+49 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE UTILITY PLAN

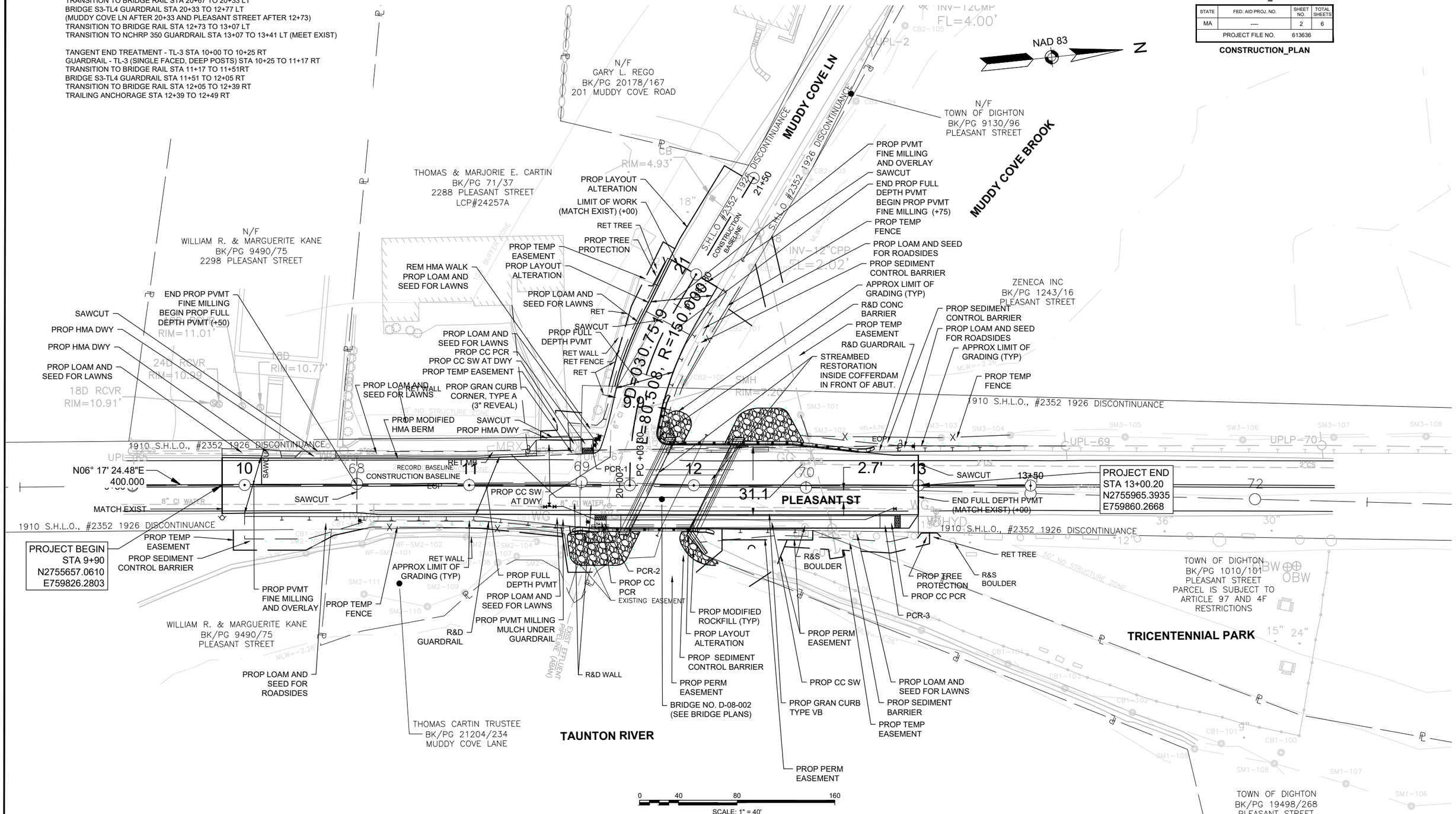
DRAINAGE DETAILS

NONE

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	2	6
PROJECT FILE NO.	613636		

CONSTRUCTION_PLAN



SHEET 2 OF 6 SHEETS BRIDGE NO. D-08-002 (CV1)

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	3A	6
PROJECT FILE NO.	613636		

GENERAL PLAN & ELEVATION 3A

Plotted on 14-Jan-2026 10:55 AM
GEN PLAN AND ELEVATION.DWG

CB2–100
SMH
RIM=7.20'
SM3–101
EXIST. 6"ø WATER
EXIST. SEWER (ABANDONED)
MUDDY COVE LANE
23'–0"
RAILING R = 5'–0" SHALL BE INDIVIDUALLY FABRICATED WITH STEEL PLATES BUTT WELDED AND GROUND SMOOTH
BB–4
RELOCATED OHW (BY OTHERS)
EXIST. 2"ø GAS
RELOCATED UTILITY POLE (BY OTHERS)
6"ø WATER
APPROACH SLAB (TYP.)
EXIST. PILES TO BE REMOVED AS NECESSARY (TYP.)
WP 1
EXIST. S. ABUT. TO BE REMOVED
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
REMOVABLE PANEL FOR RELOCATED 2"ø GAS (TYP.)
BB–3
EXIST. SUPERSTRUCTURE TO BE REMOVED
TEMPORARY COFFERDAM (TYP.)
C.I.P. HIGHWAY RAIL TRANSITION
WINGWALL (TYP.)
2'–6"
(2) SPACES @ 5'–8" = 11'–4"
SM2–105
SM2–106
2'–6"
(3) SPACES @ 5'–0" = 15'–0"
EXIST. WINGWALL TO BE REMOVED (TYP.)
℄ BRG. S. ABUT. STA. 11+80.21
19½" SAFETY CURB
7'–0" SHOULDER
11'–0" TRAVEL LANE
40'–0" OUT–TO–OUT
12'–7¾" PHASE 2 WORK (SEE SHEET 6 FOR DETAILS)
20'–0"
26'–0" OPENING (SKEWED)
℄ MUDDY COVE
12+00
64°0'0" (TYP.)
15'–0" (TYP.)
WP 2
℄ PLEASANT STREET STA. 11+94.66 = ℄ MUDDY COVE STA 0+25.00
2'–0" SHOULDER
6'–0" SDWK.
27'–4½" PHASE 1 WORK (SEE SHEET 6 FOR DETAILS)
22'–0"
21'–9⅝"
16½"
S3–MTL4 BRIDGE RAIL (TYP.)
(4) SPACES @ 6'–6" = 26'–0"
4'–2⅝"
23'–4¾" OPENING (SQUARE)
LIMITS OF MODIFIED ROCKFILL (HWY ITEM) (TYP.)
℄ BRG. N. ABUT. STA. 12+9.20
(10) SPACES @ 6'–6" = 65'–0"
EXIST. N. ABUT. TO BE REMOVED
PILE CAP (TYP.)
BB–1
℄ PLEASANT STREET
N6°17'24"E
2"ø GAS (BY OTHERS)
BB–2
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
PARAFFIN JOINT SPACING
POST SPACING
PROP. WINGWALL TO MATCH EXIST. WINGWALL
PRECAST HIGHWAY GUARDRAIL TRANSITION (TYP.)
8"ø WATER
173°29'25"
19'–9¾"
20'–0"
20'–2¼"
SM3 (3) SPACES @ 5'–0" = 15'–0"
3'–7" POST SPACING
PARAFFIN JOINT SPACING
VERTICAL H–PILE (TYP.)
BATTERED H–PILE (TYP.)
PERMANENT EASEMENT
TEMPORARY EASEMENT
3
N: 2755884.185'
E: 759872.469'
EL: 6.642'
SPIKE
CB1–107
MEAN LOW WATER (ELEV. = –2.62')
UPL–GAS–GP
GUY

GENERAL PLAN
SCALE: 3/16" = 1'–0"

##########	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

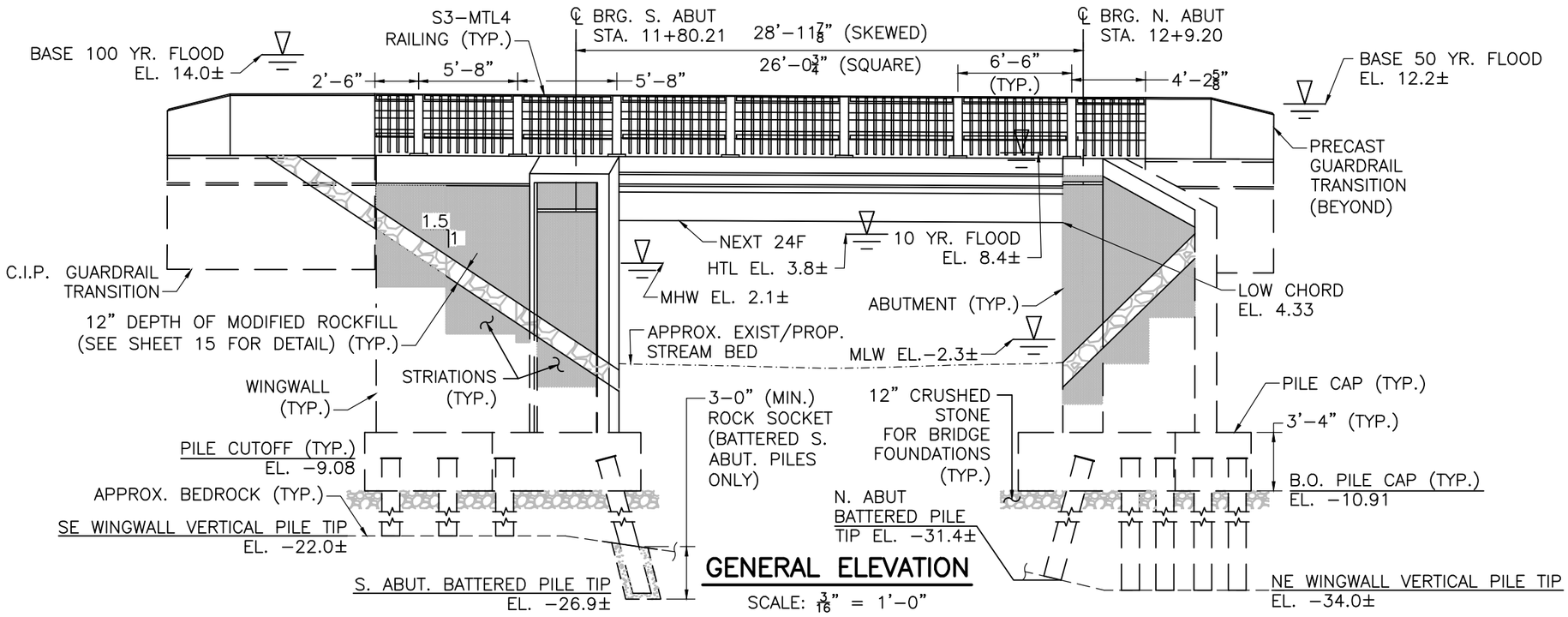
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

SHEET 3A OF 7 SHEETS BRIDGE NO. D–08–002 (CV1)

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-----	3B	7
PROJECT FILE NO.		613636	

GENERAL PLAN & ELEVATION 3B



GENERAL ELEVATION

SCALE: $\frac{3}{16}$" = 1'–0"

########## #	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

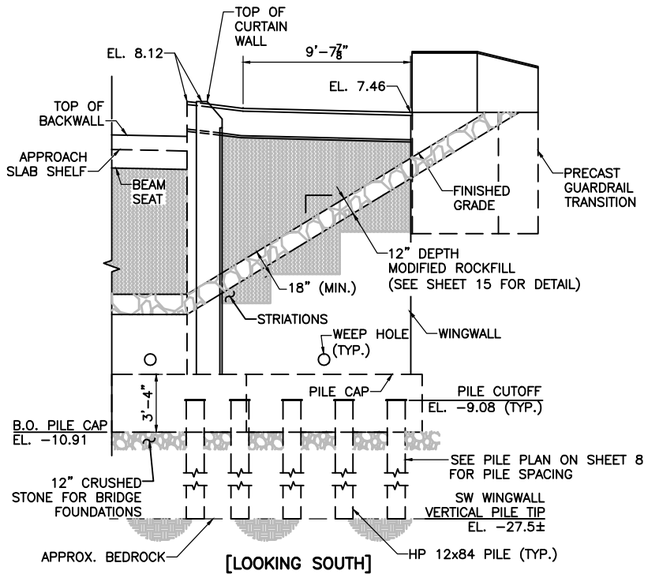
SHEET 3B OF 7 SHEETS BRIDGE NO. D–08–002 (CV1)

GEN PLAN AND ELEVATION.DWG Plotted on 9-Dec-2025 11:16 AM

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	4	7
PROJECT FILE NO.	613636		

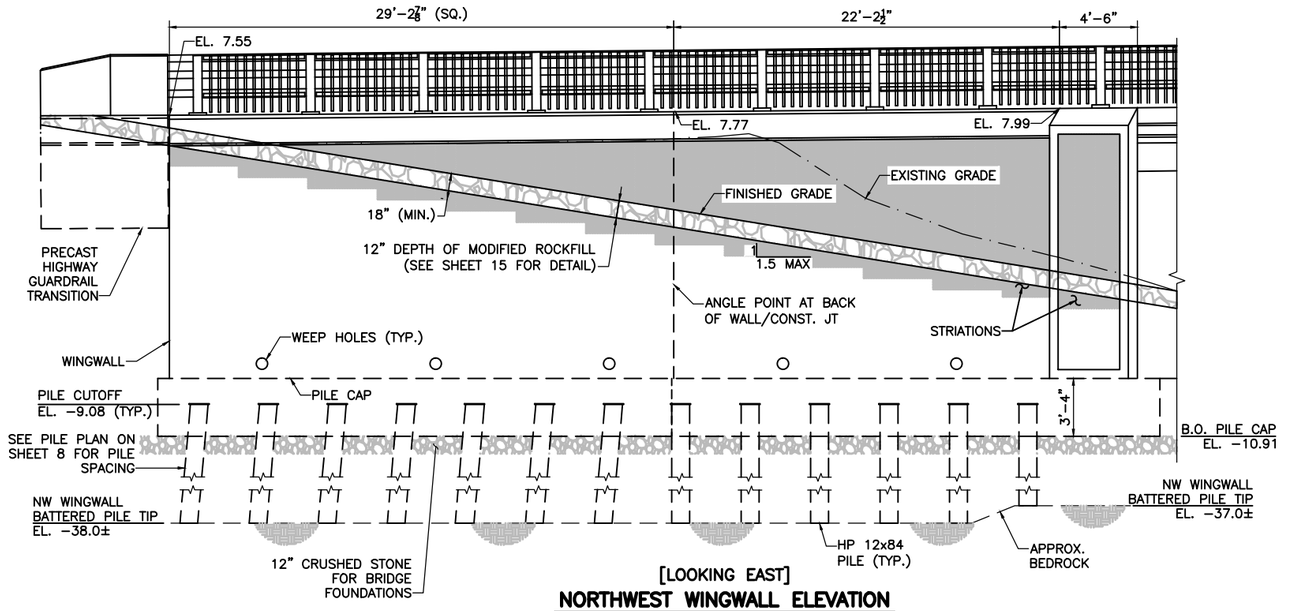
WINGWALL ELEVATIONS



[LOOKING SOUTH]

SOUTHWEST WINGWALL ELEVATION

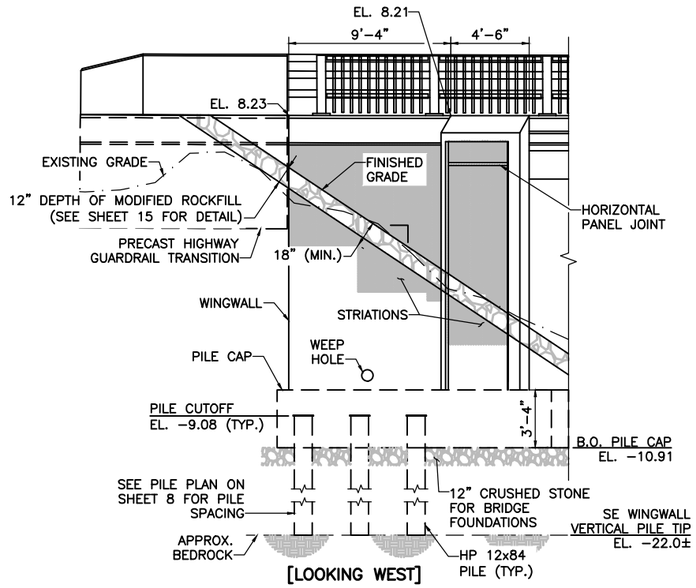
SCALE: ¼" = 1'-0"



[LOOKING EAST]

NORTHWEST WINGWALL ELEVATION

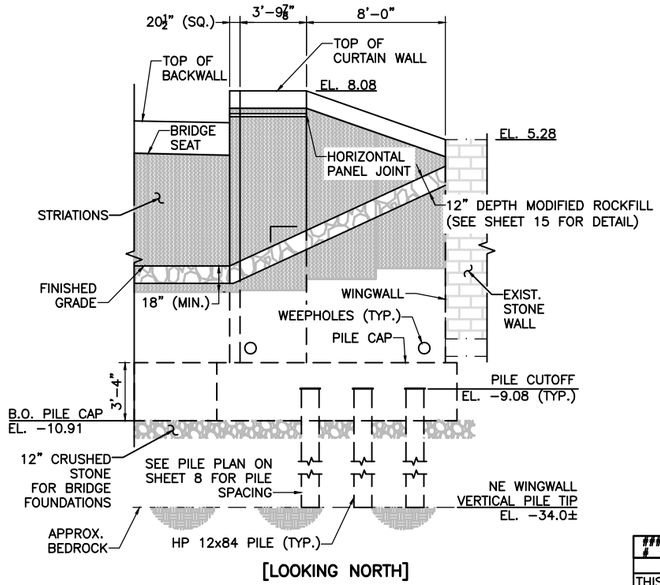
SCALE: ¼" = 1'-0"



[LOOKING WEST]

SOUTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"



[LOOKING NORTH]

NORTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"

#	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

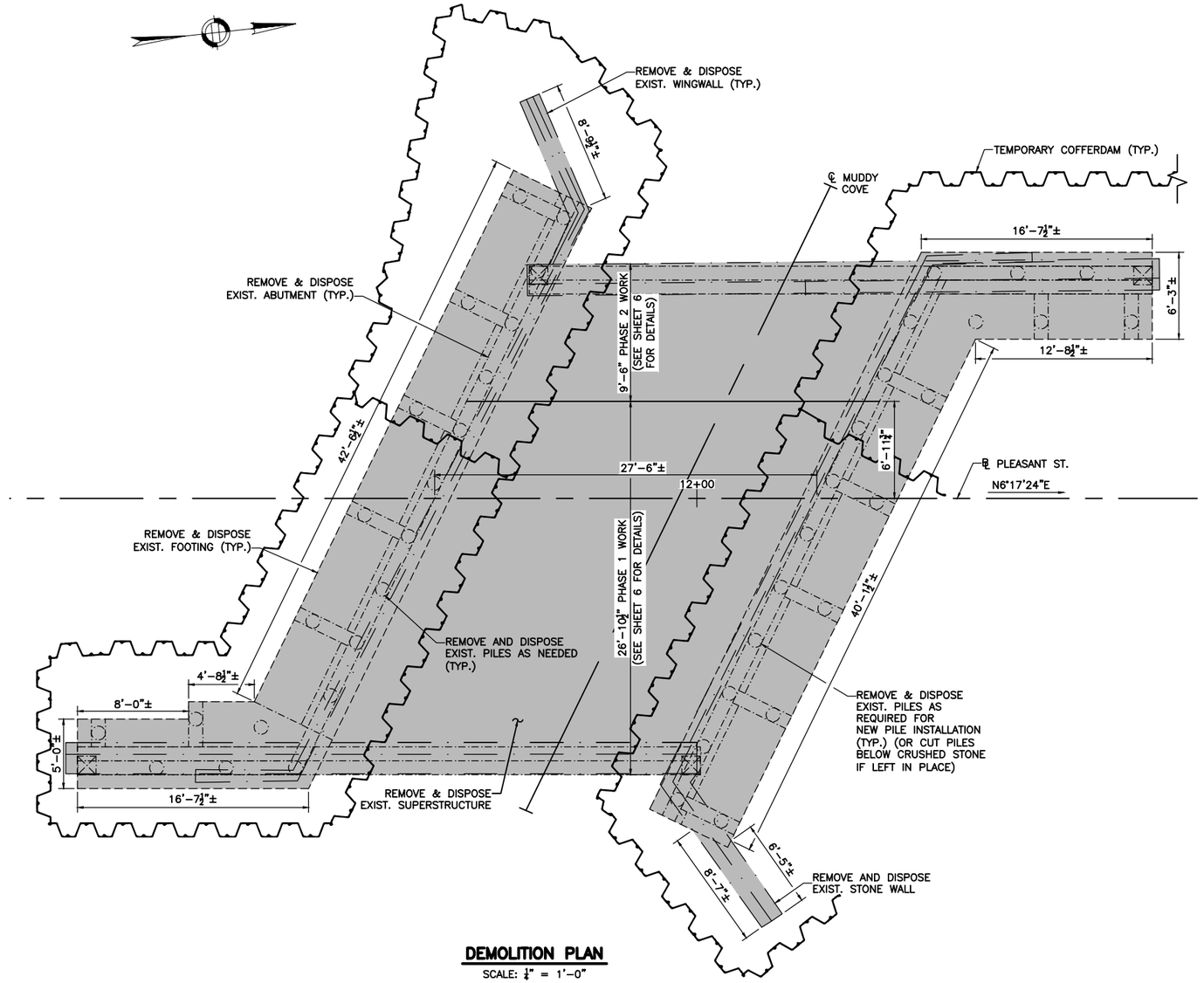
WINGWALL ELEVATIONS.DWG Plotted on 9-Dec-2025 11:07 AM

DIGHTON
PLEASANT_STREET

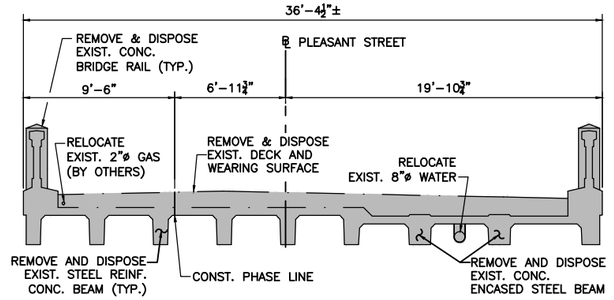
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	5	7
PROJECT FILE NO.	613636		

DEMOLITION

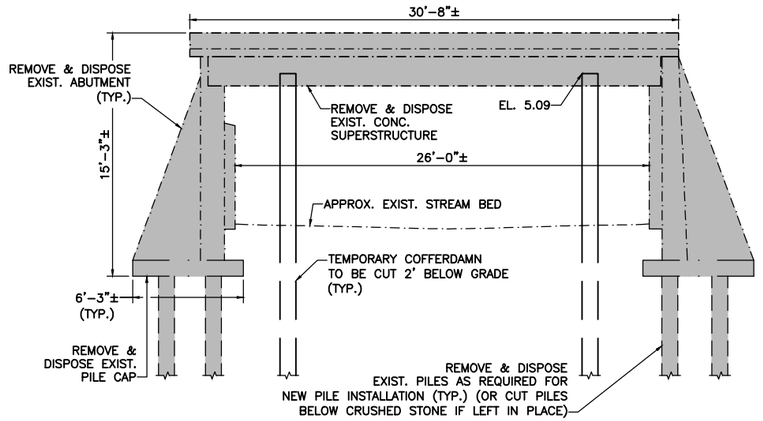
NOTES:
1. TEMPORARY COFFERDAM TO BE PUT IN PLACE ONCE EXISTING SUPERSTRUCTURE IS REMOVED



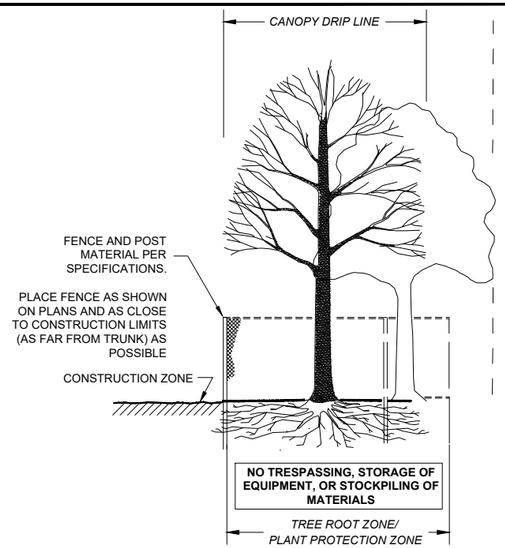
DEMOLITION PLAN
SCALE: ¼" = 1'-0"



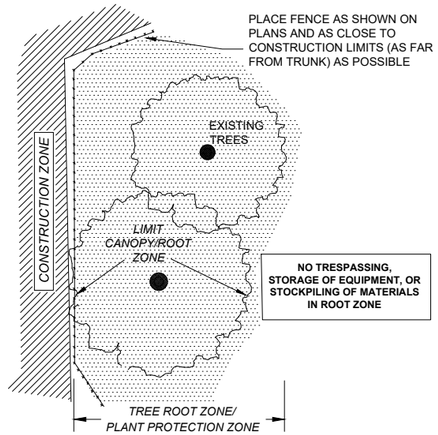
DEMOLITION CROSS SECTION
SCALE: ¼" = 1'-0"



DEMOLITION LONGITUDINAL SECTION
SCALE: ¼" = 1'-0"

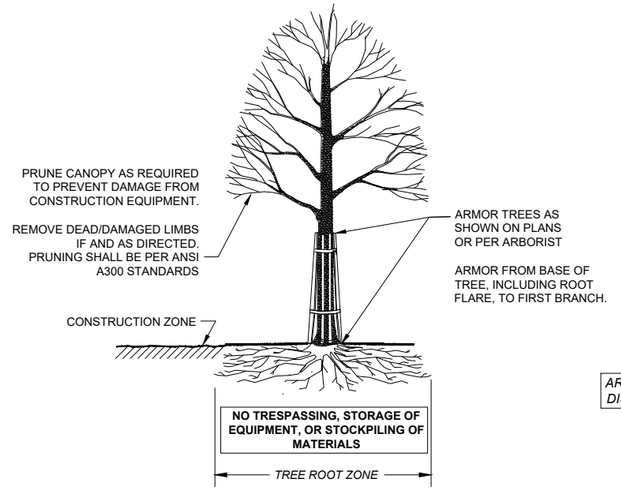


SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - ROOT ZONE
NOT TO SCALE



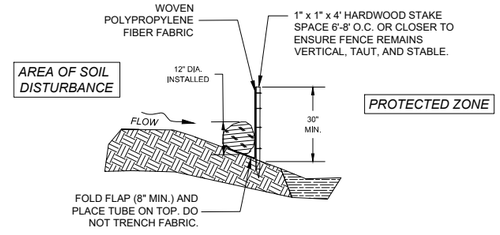
SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - TRUNK
NOT TO SCALE

DIGHTON
PLEASANT_STREET

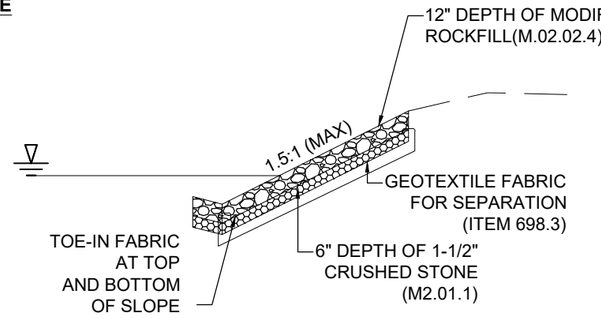
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	6	7
PROJECT FILE NO.	613636		

CONSTRUCTION DETAILS

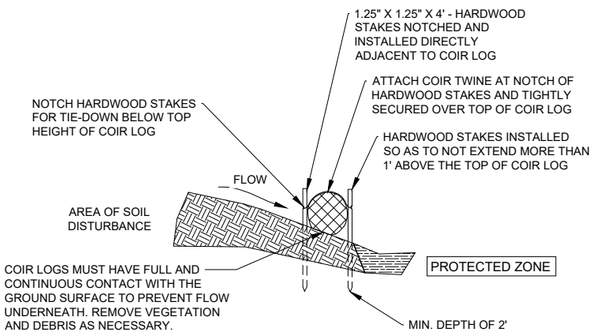


SECTION

COMPOST FILTER TUBE & SILT FENCE
NOT TO SCALE

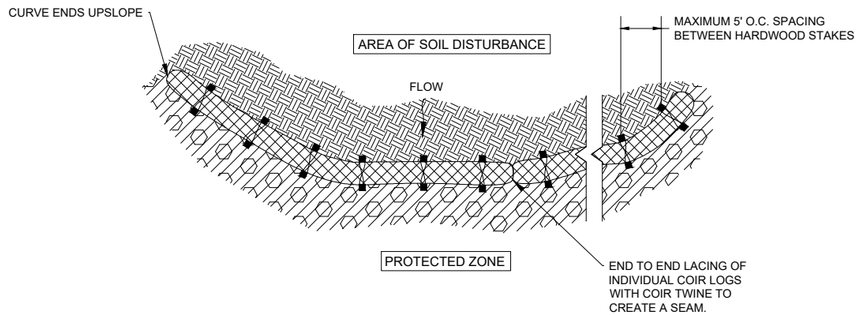


MODIFIED ROCKFILL
NOT TO SCALE



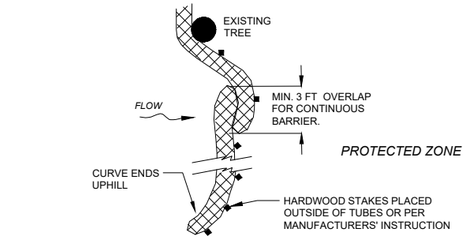
IF, UPON APPROVAL OF THE ENGINEER, COIR WATTLE IS USED IN PLACE OF COIR LOGS FOR REPAIRS DURING CONSTRUCTION, DIAMETER OF COIR WATTLE MAY BE 12 INCHES.

SECTION



PLAN VIEW

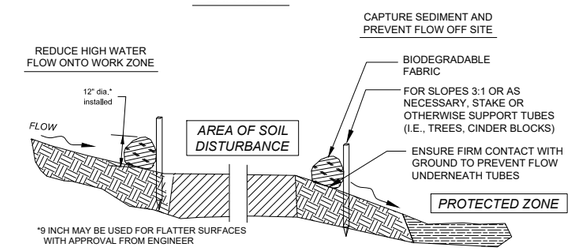
SEDIMENT BARRIER - COIR LOG
NOT TO SCALE



PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLAN VIEW



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE
NOT TO SCALE

CONSTRUCTION DETAILS.DWG Plotted on 19-Jan-2026 1:49 PM

DIGHTON
PLEASANT/STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	7	7
PROJECT FILE NO.	613636		

PLAN_TITLE

IMPACT LEGEND AND SUMMARY

HATCH	DESCRIPTION	AREA
	TEMPORARY IMPACT TIDAL WATERS OF THE US (TWOTUS)*	545± SF
	*DREDGING COINCIDENT WITH TEMPORARY TWOTUS IMPACTS	98.2± CY
	PERMANENT IMPACT TIDAL WATERS OF THE US (TWOTUS)	941± SF
	PERMANENT IMPACT HIGH-TIDE LINE (HTL)	109± LF
	TEMPORARY IMPACT HIGH-TIDE LINE (HTL)	102± LF
	SEDIMENT CONTROL	
	SNOW FENCING FOR ADDITIONAL SALT MARSH PROTECTION	

* TIDAL WATERS OF THE US

NOTES:

1. 100-YEAR FLOODPLAIN BOUNDARIES FROM FEMA FIRM PANELS 25005C0253H AND 25005C021G, DATED JULY 16, 2015 AND JULY 16, 2014, RESPECTIVELY. BASE FLOOD ELEVATION (BFE) ONSITE IS 14 FEET AND THE SITE IS SITUATED ENTIRELY WITHIN THE FLOODZONE.
2. WETLAND RESOURCE AREAS LOCATED ON APRIL 20, 2025 BY BETA GROUP, INC AS SHOWN ON THESE PLANS.

NAD 83

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

N/F
TOWN OF DIGHTON
BK/PG 9130/96
PLEASANT STREET

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

MUDDY COVE LN

MUDDY COVE BROOK

FLOW
EBB

1910 S.H.L.O., #2352 1926 DISCONTINUANCE

CONSTRUCTION BASELINE

RECORD BASELINE

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

N06° 17' 24.48"E
400.000

PROJECT BEGIN
STA 13+00
N2755965.1947
E759860.2449

PLEASANT ST

TRICENTENNIAL PARK

TOWN OF DIGHTON
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TOWN OF DIGHTON
BK/PG 19498/268
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F

TAUNTON RIVER

THOMAS CARTIN TRUSTEE
BK/PG 21204/234
MUDDY COVE LANE

EXISTING EASEMENT

EXIST EFFLUENT PIPELINE (ABAN)

SNOW FENCING FOR ADDITIONAL SALT MARSH PROTECTIONS

PERM TWOTUS* IMPACT = 106± SF
TEMP TWOTUS* IMPACT = 36± SF
PERM TWOTUS* IMPACT = 358± SF
TEMP TWOTUS* IMPACT = 48± SF
PERM HTL IMPACT = 33± LF
TEMP HTL IMPACT = 10± LF
PERM HTL IMPACT = 15± LF
TEMP HTL IMPACT = 43± LF
TEMP HTL IMPACT = 44± LF
TEMP TWOTUS* IMPACT = 205± SF
TEMP TWOTUS* IMPACT = 170± SF
PERM HTL IMPACT = 20± LF
TEMP HTL IMPACT = 4± LF
TEMP TWOTUS* IMPACT = 32± SF
PERM TWOTUS* IMPACT = 101± SF
TEMP HTL IMPACT = 31± LF
TEMP TWOTUS* IMPACT = 54± SF
PERM HTL IMPACT = 41± LF
PERM TWOTUS* IMPACT = 376± SF
DREDGING = 98.2± CY

D=030.7519
L=80.508, R=150.000 PT +83.80
PT +03+30

INV-12"CPP
EL=2.02'

SMH
RIM=7.26'

18D RCVR
RIM=11.01'

24D RCVR
RIM=10.99'

18D
RIM=10.77'

18D RCVR
RIM=10.91'

CB
RIM=4.93'

MLW=-2.26'

0 40 80 160
SCALE: 1" = 40'

SHEET 7 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1

613636_HDI(IMPACT PLAN)_UPDATE.DWG Plotted on 30-Jan-2026 11:03 AM

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection
Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey	**Kim Driscoll**	**Rebecca Tepper**	**Bonnie Heiple**
Governor	Lieutenant Governor	Secretary	Commissioner

April 9, 2026

Town of Dighton
979 Somerset Avenue
Dighton, MA 02715
Attn: Ralph Vitacco

RE: 401 Water Quality Certification
BRP WW 11, Minor Fill Project
Bridge Replacement Project (Bridge No. D-08-002 (CV1))
Pleasant Street over Muddy Cove Brook
Dighton, MA

401 WQC Filing Number: 26-WW11-0001-APP
USACE Application No. NAE-2025-02456
MassDOT File Number: 613636

Dear Mr. Vitacco:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed your application for a Water Quality Certification (WQC), as referenced above. The WQC application was deemed complete on March 10, 2026. In accordance with the provisions of MGL Ch. 21, §§26-53 and Section 401 of the Federal Clean Water Act as amended (33 U.S.C. §1251 et seq.), it has been determined there is reasonable assurance the proposed project will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law.

The proposed project will replace the deteriorating bridge that carries Pleasant Street over Muddy Cove Brook in Dighton (the Project). The project also includes installation of sidewalks, Americans with Disabilities Act (ADA) compliant features, scour protection measures, and full-depth roadway reconstruction of the approaches. The Project is being completed to replace aging infrastructure and improve public safety for vehicles, bicycles, and pedestrians.

The existing single-span bridge was built in 1918 and originally conveyed a trolley track that has since been removed or buried. The existing bridge is approximately 28-feet-long, 36.5-feet-wide, and contains two travel lanes with no sidewalks or bicycle accommodations. The

The Commonwealth of Massachusetts
Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston, MA 02114
Phone: 617-292-5500

superstructure sits on reinforced concrete abutments, U-wingwalls, and splayed wingwalls that are supported on piles of an unknown depth.

Muddy Cove Brook is a tidally influenced stream that flows east under the bridge to the Taunton River. West of the bridge, the brook is somewhat impounded due to an existing tidal restriction caused by the bridge crossing, as well as a dam further upstream near County Street. Salt marsh is present south of the bridge between Pleasant Street and the Taunton River, as well as north of the bridge between Pleasant Street and Muddy Cove Brook. Stormwater currently sheet flows from the roadway via country drainage. There are no existing drainage structures within the Project limits.

The Project will occur within a mapped 1% annual chance of flooding: Zone AE with a Base Flood Elevation (BFE) of 14 feet (NAVD88), which is approximately 6 feet above the existing roadway. In addition, Muddy Cove Brook and the Taunton River in the Project area have been identified by the Massachusetts Division of Marine Fisheries (DMF) as diadromous fish passage, migration, and/or spawning habitat for alewife (*Alosa pseudoharengus*), American eel (*Anguilla rostrata*), blueback herring (*Alosa aestivalis*), and white perch (*Morone americana*), as well as shellfish habitat for American oyster (*Crassostrea virginica*) and softshell clam (*Mya arenaria*).

A new, widened bridge deck will be installed on top of reconstructed abutments in the same footprint as the existing. The 40-foot-wide bridge deck will accommodate two 11-foot-wide travel lanes, a 2-foot-wide shoulder and 6-foot-wide sidewalk on the east side, and guardrails. Full-depth roadway reconstruction will extend approximately 165 feet south of the bridge and 75 feet north of the bridge, as well as 80 feet west along Muddy Cove Lane.

To perform the bridge work, sheet pile cofferdams will be installed around each of the existing abutments and the area within the cofferdams will be dewatered. This cofferdam placement will allow the center of the waterway to ebb and flow throughout construction. Once dry working conditions are established, the existing abutments, footings, piles, and wingwalls will be removed and replaced. The existing modified rockfill at the four bridge quadrants will also be replaced to provide continued slope stabilization. Following construction, the sheet piles will be cut two feet below the mudline and remain in place to ensure the new abutment footings are not compromised. The dredged portions of the channel will be restored with 24-inches of natural streambed material to the existing streambed elevation.

In total, 941 square feet (sf) of permanent impact to Land Under Ocean (LUO) will be required for the placement of modified rockfill at each bridge quadrant. An additional 545 sf of

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Phone: 617-292-5500

temporary impact to LUO and 98.2 cubic yards (cy) of dredging will also be needed for cofferdam installation and dewatering associated with replacement of the abutments and footings. No permanent or temporary impacts to salt marsh are proposed.

The Project will increase impervious surface area by 1,050 sf and qualifies as a redevelopment project as defined at 314 CMR 9.02. Stormwater will continue to run off via country drainage post-construction. Additional structural Stormwater Control Measures (SCMs) were determined to be infeasible in the Project area due to the proximity of Article 97 land, adjacent resource areas, and a high groundwater table. During the course of project review, application of a native salt-tolerant seed mix was added to the project plans at the roadway embankments to provide attenuation and treatment of roadway runoff before it discharges toward Muddy Cove Brook. As such, Stormwater Management Standards 2, 3, and 4 will be met to the maximum extent practicable and the project complies with 314 CMR 9.06(2)(b)5.

The Massachusetts Stream Crossing Standards (SCS) were developed for freshwater, non-tidal rivers and streams and may not be appropriate for coastal waterways. Nonetheless, the Project appears to meet the standards based on a review of USGS StreamStats and the Project plans. The regulations at 314 CMR 9.06(2)(b)5 require the elimination of tidal restrictions to the maximum extent practicable for projects that include work on existing crossings that restrict tidal flow. An alternatives analysis found that increasing the bridge span to eliminate the tidal restriction would encroach on Article 97 land to the north and result in salt marsh impacts. In addition, the Pleasant Street and Muddy Cove Lane intersection prohibits increasing the span to the south. While site constraints prevent the Project from eliminating the existing tidal restriction caused by the bridge crossing, the restriction will stay confined to the upstream portion of Muddy Cove Brook between the bridge and the existing dam east of County Street.

Invasive species will be managed in accordance with an Invasive Plant Management Strategy (IPMS) to be approved by MassDEP and DMF as recommended in their letter dated February 17, 2026 and included in the March 10, 2026 response to MassDEP's Administrative Completeness and Technical Deficiency Review .

In a letter dated February 17, 2026, DMF determined that spring and fall time of year (TOY) restrictions between March 15th to June 30th and September 1st to November 15th, as well as standard Best Management Practices (BMPs) for dewatering and sedimentation control, are required for the protection of American eel and alewife.

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An alternatives analysis was completed in accordance with 314 CMR 9.00. The bridge requires replacement as the no-build alternative would result in a safety hazard from continued deterioration of the bridge.

Based on a review of information provided by the applicant, MassDEP finds that this project complies with the standards described under 314 CMR 9.06. Public notice was provided in the Taunton Daily Gazette on January 27, 2026, and in the MEPA Environmental Monitor on February 11, 2026. No comment letters were received during the public comment period.

Therefore, based on information currently in the record, MassDEP grants a WQC for this project subject to the following conditions to maintain water quality, to minimize impact on waters and wetlands, and to ensure compliance with appropriate state law. The Department further certifies in accordance with 314 CMR 9.00 that there is reasonable assurance the project or activity will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law. Finally, the Department has determined that upon satisfying the conditions and mitigation requirements of this approval, the project provides a level of water quality necessary to protect existing uses and accordingly finds that the project to be implemented satisfies the Surface Water Quality Standards at 314 CMR 4.00.

Pursuant to 314 CMR 9.09(1)(d); 314 CMR 9.06(6)(a); 310 CMR 9.06(2); 314 CMR 9.07; 314 CMR 9.07(1); 314 CMR 9.09(7)(5)(c); 314 CMR 9.11; and 314 CMR 9.09(1)(e), the following Special Conditions are necessary to ensure that construction practices and stormwater controls are implemented in such a manner as to prevent degradation to wetlands and waters; ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters; minimize turbidity and sediment caused by construction activities; ensure that water quality is not degraded, and that biology of the waters are not negatively impacted by potential discharges; and/or maintain a record of the dredged material for reference and to ensure accountability in its transportation.

Those Special Conditions that require direct submittals to MassDEP for either review, or review and approval, are denoted by the following notation (Submittal) at the end of the condition and are summarized in Attachment A. In addition, those conditions with the (Submittal) designation shall be included in the Special Provisions and, as applicable, reviewed at the Pre-Construction Meeting.

1. All work shall be performed in accordance with the following documents and plans:

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a. Application for Water Quality Certification. Prepared by BETA Group, Inc. on behalf of the Town of Dighton, dated January 19, 2026, with cover letter and attachments. 401 WQC Filing Number: 26-WW11-0001-APP.

b. Plans entitled: "Bridge No. D-08-002 (CV1), PCN/WQC Plan Set". Sheets 1 through 8. Prepared by BETA Group, Inc. Dated January 20, 2026, last revised January 30, 2026.

c. MassDEP Administrative Completeness and Technical Deficiency Review. 401 WQC Transmittal No: 26-WW11-0001-APP (Minor Fill). Pleasant Street Bridge Replacement Project over Muddy Cove Brook, Dighton, Massachusetts. Dated February 11, 2026.

d. Responses to MassDEP Administrative Completeness and Technical Deficiency Review, with attachments. Prepared by BETA Group, Inc. on behalf of the Town of Dighton. 401 Water Quality Certification, Minor Fill Project Certification. Pleasant Street Bridge Replacement Project, Water Quality Certification (26-WW11-0001-APP). Dated March 10, 2026.

Pre-Construction

2. A qualified **Fluvial Geomorphologist** (FGM) with a minimum of five years of relevant professional experience in stream replication and restoration projects shall be employed to oversee all LUO restoration activities as proposed in the WQC application and approved herein. The name, contact information, and qualifications of the FGM shall be provided to MassDEP for review and approval with a copy to the Dighton Conservation Commission prior to the Pre-Construction Meeting required in Condition 5. The FGM shall either attend the Pre-Construction Meeting or a separate virtual or onsite meeting with MassDEP, MassDOT, and the Contractor prior to any LUO restoration work. **(Submittal)**

3. One individual with at least three years of experience with construction period erosion and sedimentation controls shall be employed to be responsible for Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) inspections (CP/PP Inspector). The name, contact information, and qualifications of the CP/PP Inspector shall be provided to MassDEP for review and approval with a copy to the

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Dighton Conservation Commission prior to the Pre-Construction Meeting required in Condition 5. **(Submittal)**

4. Prior to the Pre-Construction Meeting required in Condition 5, the applicant shall provide MassDEP with the name and contact information of the Resident Engineer (RE) responsible for ensuring that all work complies with the conditions of this WQC. **(Submittal)**

5. A minimum of 21 days prior to the start of ground disturbance or vegetation clearing, MassDOT shall contact MassDEP to schedule an onsite Pre-Construction Meeting to review the approved plans and terms and conditions of this WQC. The RE, the construction contractor (Contractor), the CP/PP Inspector, a representative from the MassDOT Environmental Section and/or the District Environmental Engineer shall attend the Pre-Construction Meeting. **No work shall commence prior to the Pre-Construction Meeting.**

6. MassDEP shall be copied on applicable submittals to the U.S. Army Corps of Engineers (USACE). These include but are not limited to: Self-Verification Notification Form (SVNF); Pre-Construction Notification (PCN); Work-Start Notification Form; Mitigation Work-Start Notification Form; and Compliance Certification Form. The Work-Start Notification Form shall be submitted at least 14 days before the anticipated start of work and the Compliance Certification Form shall be submitted within 30 days following the completion of the authorized work. **(Submittal)**

7. A CP/PP shall be developed and implemented as required by 314 CMR 9.06(6)(a)8. A minimum of 14 days prior to the start of work, the proponent shall submit the CP/PP for review and approval. If the U.S. Environmental Protection Agency (EPA) Construction General Permit (CGP) applies, the Stormwater Pollution Prevention Plan (SWPPP) may serve as the CP/PP, providing it includes the measures required to be in the CP/PP per these Special Conditions, in addition to the measures specifically required by the CGP. Any subsequent changes to the approved CP/PP (defined herein as including the construction period SWPPP if applicable) must be approved by MassDEP. **(Submittal)**

8. Training regarding erosion and sedimentation controls is required. The CP/PP Inspector and any other relevant personnel responsible for erosion and sedimentation controls shall complete the EPA CGP Inspector Training, or other training that meets the CGP requirements, as well as complete a comprehensive review of the approved CP/PP.

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Proof of completion of the training shall be submitted to MassDEP prior to the start of work. **(Submittal)**

9. The CP/PP shall identify, but shall not be limited to, staging and laydown areas in relation to LUO and Salt Marsh, proposed dewatering methods and locations, proposed stockpile locations and their proximity to catch basins or other drainage conveyances that discharge to wetland resource areas, and the location of construction-period erosion and sedimentation controls. Stockpiles shall be located no less than 25 feet from LUO, Salt Marsh, catch basins, or other drainage conveyances that discharge to LUO or Salt Marsh.

10. A minimum of 14 days prior to the start of work, the proponent shall submit a Control of Water Plan for review and approval. The Plan shall include a description of proposed methods to isolate and dewater work areas within streams while maintaining stream flow, including but not limited to the method of isolation (e.g., steel sheeting or sandbag cofferdam), dewatering methods and locations and specifications for stream bypass systems as applicable. The Control of Water Plan shall include a plan depicting LUO and Salt Marsh boundaries, and the location of all relevant methods and materials which shall be located within the LUO impact area approved herein. The plan shall meet the requirements of the CP/PP and be specific to the Project. Dewatering and stream bypasses shall be conducted under the supervision of the RE or other project staff with knowledge of these practices and comply with the applicable conditions identified herein. **(Submittal)**

11. Prior to the start of work, approved erosion and sedimentation control measures shall be installed per the approved CP/PP and as applicable, the manufacturer specifications. Erosion and sedimentation control measures may consist of, but are not limited to, silt fence, staked straw bales, silt/turbidity curtains, compost filter tubes, etc.

12. Prior to the Pre-Construction Meeting, the boundaries of LUO and Salt Marsh shall be re-flagged where they are within 50 feet of the limits of work. All boundary markers, once in place, shall remain in place throughout construction until all disturbed surfaces have been permanently stabilized. Boundary markers shall be fully evaluated annually and refreshed where needed. Implementation of and compliance with this requirement shall be documented by the RE. All construction personnel shall be made aware of these markers.

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13. Prior to any work within the 1% annual chance of flooding zone within Project limits, including mobilization or storage of equipment and materials, a Flood Contingency Plan shall be submitted to MassDEP for review and approval that includes at a minimum the following information and provisions: **(Submittal)**

    a. The RE and/or Contractor shall monitor the National Weather Service forecast daily, and upon issuance of a flood watch or flood warning for the Project area, the Flood Contingency Plan shall be implemented.

    b. Upon implementation of the Flood Contingency Plan, all construction equipment and materials located below the Base Flood Elevation (BFE) shall be removed and placed in an upland location above the BFE and outside of LUO.

    c. Anchored stationary equipment may remain below the BFE if demonstrated to be required and upon written approval from MassDEP. In the event semi-stationary equipment cannot be feasibly removed before the arrival of the storm, they shall be adequately secured and MassDEP shall be notified prior to the storm.

    d. A requirement to inspect and maintain all erosion and sedimentation controls, and stabilize all exposed soils as needed below the BFE prior to the storm shall be included.

    e. A plan depicting at a minimum, but not limited to LUO boundaries, the Project limits, and the BFE boundary based on ground elevations shall be included.

    f. Staff and materials must be available 24 hours per day, seven days per week to implement the Flood Contingency Plan. The name, affiliation, title, email address, and phone number of each person responsible for implementing the Flood Contingency Plan shall be included.

    g. No work shall commence until the flood watch or flood warning has ended, all areas below the BFE have been inspected, and erosion and sedimentation controls are maintained as needed.

14. An Invasive Plant Management Strategy (IPMS) shall be submitted to MassDEP and DMF for review and approval prior to the Pre-Construction Meeting. The IPMS shall be implemented as approved. **(Submittal)**

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15. If needed, use of herbicides to control invasive species shall be implemented in accordance with the approved IPMS and with the following requirements:

    a. Herbicides shall only be applied by a Licensed Applicator;

    b. Only herbicides registered with the Massachusetts Pesticide Board Subcommittee shall be applied to the targeted area/species;

    c. The manufacturer's label directions must be followed, in addition to any conditions imposed by other state or local authorities;

    d. Herbicide application shall use no more than the minimum application rate to accomplish removal of the target species; and

    e. Applicants must obtain a BRP WM04 Herbicide Permit from the MassDEP Wetlands Program Dredge Unit before performing herbicide application in waterbodies (traditionally lakes and ponds).

16. A minimum of 21 days prior to the start of demolition work, a Demolition Plan shall be submitted for review and approval describing how the existing bridge will be demolished and what measures will be taken to ensure that demolition material, including but not limited to any pollutants, construction debris, toxic or hazardous substances, and airborne dust, is properly contained and does not enter Muddy Cove Brook. **(Submittal)**

Construction Period

17. No more than **941 sf** of permanent and **545 sf** of temporary impacts to LUO shall occur. No more than **98.2 cy** of dredging in LUO shall occur. There shall be **0 sf** of permanent and **0 sf** of temporary impacts to Salt Marsh. All work shall avoid unapproved impacts to Salt Marsh and LUO.

18. Under the direction of the CP/PP Inspector, inspection and maintenance of erosion and sediment controls in active work areas may be performed by both the Contractor and RE or other MassDOT project staff. Maintenance is the responsibility of the Contractor; however, the permittee shall be ultimately responsible for erosion and sedimentation control failure. The RE and/or contractor shall immediately notify MassDEP and the

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Dighton Conservation Commission if any unauthorized discharges to LUO or Salt Marsh occur.

19. CP/PP inspections shall occur at least once every seven calendar days and within 24 hours of a storm event that produces 0.5 inches or more of rain within a 24-hour period, or at a more stringent frequency if the CP/PP requires.

20. Copies of CP/PP Inspection and Maintenance Log Forms shall be submitted to MassDEP within 14 days upon request.

21. Disturbed areas shall be stabilized immediately after activities have permanently ceased or will be temporarily inactive for 14 or more calendar days. The installation of stabilization measures shall be implemented as soon as practicable, but no later than 14 calendar days after disturbed areas have been inactive.

22. Work within LUO shall be conducted in low or no-flow conditions to the extent practicable. Notice shall be provided to MassDEP and the Dighton Conservation Commission within 24 hours prior to the commencement of dewatering. Dewatering methods and location(s) shall be approved by the RE or other project staff with knowledge of these practices prior to use to ensure consistency with the approved Control of Water Plan, and shall be documented in the CP/PP. There shall be no discharge of untreated dewatered stormwater or groundwater to LUO or Salt Marsh. Any discharges shall be visibly free of sediment.

23. Additional erosion and sedimentation control materials shall be stored on-site at all times for emergency and routine replacement. Materials shall be kept covered, dry, and accessible at all times. The CP/PP Inspector and RE shall be responsible for anticipating the need for and installation of additional erosion and sedimentation controls and shall have the authority to require additional erosion control measures to protect wetland resource areas beyond what is shown on the plans if field conditions or professional judgment dictate that additional protection is necessary.

24. The Contractor shall monitor the National Weather Service forecast for updates, and upon issuance of a flood watch for the 1% annual chance of flooding zone, shall implement the Flood Contingency Plan referenced in Condition 13.

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25. Any storm drains with potential to receive discharge from stockpiled materials or construction operations shall be managed to inhibit the inflow of sediment while not increasing the likelihood of roadway flooding during periods of precipitation. The CP/PP shall specify measures to implement this. Filter fabric stretched under storm drain inlet grates are not acceptable for this purpose.

26. Stockpiles shall be located no less than 25 feet from LUO, Salt Marsh, catch basins, or other drainage conveyances that discharge to LUO or Salt Marsh.

27. The contractor shall have designated washout areas for concrete equipment that will be comprised of impermeable material and sized to contain project concrete wastes and wash water. Concrete wash out areas shall be located no less than 50 feet from LUO, Salt Marsh and catch basins or other drainage conveyances that discharge directly or indirectly to LUO or Salt Marsh.

28. Refueling, washing, and cleaning of vehicles and other construction equipment shall not take place within 50 feet of LUO or Salt Marsh and any wash water shall be contained such that it does not drain toward LUO or Salt Marsh. MassDEP shall explicitly approve in writing any deviation to this condition for oversized stationary vehicles.

29. The contractor shall have spill containment kits on site. In the event of a release of fuels and/or oils, the local fire department, MassDEP Emergency Response and MassDEP Wetlands Program Highway Unit shall be immediately contacted, and in addition, the MassDEP Bureau of Waste Site Cleanup shall be notified per the requirements of the Massachusetts Contingency Plan, 310 CMR 40.0000.

30. No in-water, silt-producing work shall occur during the Time of Year (TOY) restrictions between the dates of March 15 to June 30 and September 1 to November 15. Work may proceed during the fall TOY period, provided a Water Control/Diversion Plan (i.e. Control of Water Plan referenced in Condition 10) is approved by DMF.

31. Construction vehicles and equipment shall not enter LUO or Salt Marsh unless authorization is provided by way of this permit or amendment. The Contractor shall use equipment with boom reach capabilities and other measures to avoid inadvertent impacts to jurisdictional resource areas as a result of excavation, riprap placement, and/or bridge/pier demolition materials.

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32. A temporary shielding or containment system shall be in place beneath the bridge structure prior to removal to prevent debris from falling into the water below. In the event any debris accidentally enters Muddy Cove Brook, it shall be immediately retrieved. Notice shall be provided to MassDEP if debris enters the river and that it has been removed with photo-documentation (if practicable) submitted by email.

Stream Mitigation

33. The FGM shall oversee all LUO restoration. Placement of streambed materials shall take place in no- or low-flow conditions. The Control of Water Plan required in Condition 10 shall include measures to create no-flow conditions for this work such as a pump bypass system or other dewatering method, if needed. Placement of streambed materials during greater than low-flow conditions shall require a placement plan, with a narrative describing turbidity control measures, submitted to MassDEP for review and approval.

34. A minimum of 14 days prior to installation of the streambed materials, the FGM shall meet with the contractor to determine the suitability of stockpiled streambed material for reuse and whether there is sufficient stockpiled material to complete streambed restoration.

35. Water shall be slowly introduced back into the restored and dewatered LUO work areas as to not cause erosion and sedimentation. This work shall be overseen by the FGM. The FGM shall provide final approval of the streambed restoration upon re-wetting of banks and removal of water controls (photographs will suffice unless otherwise determined by the FGM).

36. Upon completion of the LUO restoration, the FGM shall provide photographs and a summary of the completed work to MassDEP and the Dighton Conservation Commission. **(Submittal)**

37. MassDEP reserves the right to determine the success or failure of the LUO restoration areas and reserves the right to require additional measures deemed necessary to promote success.

Post-Construction

38. All temporary erosion and sedimentation controls shall be removed at the conclusion of work once the surrounding area has achieved final stabilization.

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39. Compost or mulch used as an erosion or sedimentation control may be spread evenly in upland areas at a depth of no more than two inches and shall not be spread in Salt Marsh or LUO.

General Conditions

40. Any proposed plan changes or amendment requests, as well as any required submittals shall be sent by email for review and approval to heidi.davis@mass.gov and jaime.iannelli@mass.gov. **(Submittal)**

41. This WQC remains in effect for the same duration as the Section 404 permit that requires it.

42. No Special Condition set forth herein shall be construed or operate to prohibit MassDEP from taking enforcement against the Town of Dighton or its contractors for any failure to comply with the terms and requirements of this WQC.

43. No activity authorized by this WQC may begin prior to expiration of the 21-day appeal period, or until a final decision is issued by MassDEP in the event of an appeal.

Failure to comply with this Certification is grounds for enforcement, including civil and criminal penalties, under MGL Ch. 21 §42, MGL Ch. 21A §16, or other possible actions/penalties as authorized by the General Laws of the Commonwealth.

This Certification does not relieve the applicant of the obligation to comply with other appropriate state or federal statutes or regulations.

NOTICE OF APPEAL RIGHTS

a.) Appeal Rights and Time Limits

Certain persons shall have a right to request an adjudicatory hearing concerning certifications by MassDEP when an application is required: (a) the applicant or property owner; (b) any person aggrieved by the decision who has submitted written comments during the public comment period; (c) any ten (10) persons of the Commonwealth pursuant to M.G.L. c.30A where a group member has submitted written comments during the public comment period; or (d) any governmental body or private organization with a mandate to protect the environment which has submitted written comments during the public comment period. Any person aggrieved, any ten (10) persons of the Commonwealth, or a governmental body or private

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organization with a mandate to protect the environment may appeal without having submitted written comments during the public comment period only when the claim is based on new substantive issues arising from material changes to the scope or impact of the activity and not apparent at the time of public notice. To request an adjudicatory hearing pursuant to M.G.L. c.30A, § 10, a Notice of Claim must be made in writing, provided that the request is made by certified mail or hand delivery to MassDEP, with the appropriate filing fee specified within 310 CMR 4.10 along with a DEP Fee Transmittal Form within twenty-one (21) days from the date of issuance of this Certificate, and addressed to:

Case Administrator
Department of Environmental Protection
100 Cambridge Street, 9th Floor
Boston, MA 02114

A copy of the request shall at the same time be sent by certified mail or hand delivery to the Department of Environmental Protection at:

Department of Environmental Protection
Wetlands Program, Highway Unit
100 Cambridge Street, 8th floor
Boston, MA 02114

b.) Contents of Hearing Request

A Notice of Claim for Adjudicatory Hearing shall comply with MassDEP's Rules for Adjudicatory Proceedings, 310 CMR 1.01(6), and shall contain the following information pursuant to 314 CMR 9.10(3):

1. the 401 Certification Transmittal Number;
2. the complete name of the applicant and address of the project;
3. the complete name, address, and fax and telephone numbers of the party filing the request, and, if represented by counsel or other representative, the name, fax and telephone numbers, and address of the attorney;
4. if claiming to be a party aggrieved, the specific facts that demonstrate that the party satisfies the definition of "aggrieved person" found at 314 CMR 9.02;
5. a clear and concise statement that an adjudicatory hearing is being requested;
6. a clear and concise statement of (1) the facts which are grounds for the proceedings, (2) the objections to this Certificate, including specifically the manner in which it is alleged

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to be inconsistent with the MassDEP's Water Quality Regulations, 314 CMR 9.00, and (3) the relief sought through the adjudicatory hearing, including specifically the changes desired in the final written Certification; and

7. a statement that a copy of the request has been sent by certified mail or hand delivery to the applicant, the owner (if different from the applicant), the conservation commission of the city or town where the activity will occur, the Department of Conservation and Recreation (when the certificate concerns projects in Areas of Critical Environmental Concern), the public or private water supplier where the project is located (when the certificate concerns projects in Outstanding Resource Waters), and any other entity with responsibility for the resource where the project is located.

c.) Filing Fee and Address

The hearing request along with a DEP Fee Transmittal Form and a valid check or money order payable to the Commonwealth of Massachusetts in the amount of one hundred dollars ($100) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
Commonwealth Master Lockbox
PO Box 4062
Boston, MA 02211

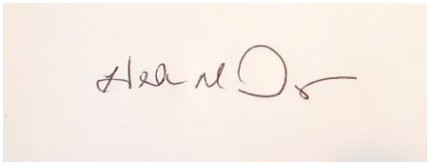
The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. MassDEP may waive the adjudicatory hearing filing fee pursuant to 310 CMR 4.06(2) for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file an affidavit setting forth the facts believed to support the claim of undue financial hardship together with the hearing request as provided above.

Should you have any questions relative to this permit, please contact myself or Jaime Iannelli at heidi.davis@mass.gov and jaime.iannelli@mass.gov.

Very truly yours,

The Commonwealth of Massachusetts
Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston, MA 02114
Phone: 617-292-5500



Heidi M. Davis
Highway Unit Supervisor

Ecc: DEP SERO – Maissoun Reda
USACE – Dan Vasconcelos
USACE – Kevin Newton
USACE via email – cenae-r-ma@usace.army.mil
Dighton Conservation Commission – Lisa Caledonia
Town of Dighton – Tom Ferry
MassDOT – Courtney Walker
MassDOT – Lily Collins
MassDOT – Greg Frazier
BETA Group, Inc – Laura Krause
BETA Group, Inc – Tyler Drew
BETA Group, Inc – Todd Warzecki
MA DMF – Amanda Davis

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Attachment A

Pre-Construction Submittal Checklist

Pleasant Street Bridge Replacement Project over Muddy Cove Brook
Dighton, Massachusetts

This checklist must be completed prior to the start of work. Note that some conditions require that information be submitted a specific number of days prior to the start of work or the pre-construction meeting.

Pre-Construction Meeting Date: _____

Condition	Required Submittal	Due Date	Date Submitted	Date Approved
PRE-CONSTRUCTION SUBMITTAL REQUIREMENTS				
2	Name, contact information, and qualifications of the FGM, including specific experience and years to meet requirement	Prior to Pre-Construction Meeting		
3	Name, contact information, and qualifications of the CP/PP Inspector, including specific experience and years to meet requirement	Prior to Pre-Construction Meeting		
4	Name and contact information of the RE	Prior to Pre-Construction Meeting		
6	USACE Work-Start Notification Form	14 days prior to work start		
7	CP/PP	14 days prior to work start		

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8	Verification of SWPPP Training	Prior to work start		
10	Control of Water Plan	14 days prior to work start		
13	Flood Contingency Plan	Prior to any work within 1% annual chance of flooding zone		
14	Invasive Plant Management Strategy (IMPS)	Prior to Pre-Construction Meeting		
16	Demolition Plan	21 days prior to work start		

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重要 महत्वपूर्ण σημαντικός Important կարեւոր quan trọng مهم

Communication for Non-English-Speaking Parties

This document is important and should be translated immediately.

If you need this document translated, please contact MassDEP's Director of Environmental Justice at the telephone number listed below.

Español Spanish

Este documento es importante y debe ser traducido inmediatamente. Si necesita traducir este documento, póngase en contacto con el Director de Justicia Ambiental de MassDEP (*MassDEP's Director of Environmental Justice*) en el número de teléfono que figura más abajo.

Português Portuguese

Este documento é importante e deve ser traduzido imediatamente. Se você precisar traduzir este documento, entre em contato com o Diretor de Justiça Ambiental do MassDEP no número de telefone listado abaixo.

繁體中文 Chinese Traditional

本文檔很重要，需要即刻進行翻譯。
如需對本文檔進行翻譯，請透過如下列示電話號碼與 MassDEP 的環境司法總監聯絡。

简体中文 Chinese Simplified

这份文件非常重要，需要立即翻译。
如果您需要翻译这份文件，请通过下方电话与 MassDEP 环境司法主任联系。

Ayisyen Kreyòl Haitian Creole

Dokiman sa a enpòtan epi yo ta dwe tradui l imedyatman. Si w bezwen tradui dokiman sa a, tanpri kontakte Direktè. Jistis Anviwònmantal MassDEP a nan nimewo telefòn ki endike anba a.

Việt Vietnamese

Tài liệu này và quan trọng và phải được dịch ngay. Nếu quý vị cần bản dịch của tài liệu này, vui lòng liên hệ với Giám Đốc Phòng Công Lý Môi Trường của MassDEP theo số điện thoại được liệt kê bên dưới.

ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះមានសារៈសំខាន់
ហើយគប្បីត្រូវត្រូវបានបកប្រែភ្លាមៗ.
ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ
សូមទាក់ទងនាយកផ្នែកយុត្តិធម៌បរិស្ថានរបស់
MassDEPតាមរយៈលេខទូរស័ព្ទដែលបានរាយដូចខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

Es dokumentu sta important i tenki ser tradusidu immediatamenti. Se nho ta presisa ke es dokumentu sta tradisidu, por favor kontata O Diretor di Justisia di Environman di DEP ku es numero di telifoni menxionadu di baixo.

The Commonwealth of Massachusetts
Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston, MA 02114

Русский Russian

Это чрезвычайно важный документ, и он должен быть немедленно переведен. Если вам нужен перевод этого документа, обратитесь к директору Департамента экологического правосудия MassDEP (MassDEP's Director of Environmental Justice) по телефону, указанному ниже.

العربية Arabic

هذه الوثيقة مهمة وتجب ترجمتها على الفور.

إذا كنت بحاجة إلى ترجمة هذه الوثيقة، فيرجى الاتصال بمدير العدالة البيئية في MassDEP على رقم الهاتف المذكور أدناه.

한국어 Korean

이 문서는 중대하므로 즉시 번역되어야 합니다.
본 문서 번역이 필요하신 경우, 매사추세츠 환경보호부의 "환경정의" 담당자 분께 문의하십시오. 전화번호는 아래와 같습니다.

հայերեն Armenian

Այս փաստաթուղթը կարևոր է, և պետք է անհապաղ թարգմանել այն:
Եթե Ձեզ անհրաժեշտ է թարգմանել այս փաստաթուղթը, դիմեք Մասաչուսեթսի շրջակա միջավայրի պահպանության նախարարության (MassDEP) Բնապահպանական հարցերով արդարադատության ղեկավարին (Director of Environmental Justice)՝ ստորև նշված հեռախոսահամարով

فارسی Farsi Persian

این نوشتار بسیار مهمی است و باید فوراً ترجمه شود.
اگر نیاز به ترجمه این نوشتار دارید لطفاً با مدیر عدالت محیط زیستی MassDEP در شماره تلفن ذکر شده زیر تماس بگیرید.

Français French

Ce document est important et doit être traduit immédiatement. Si vous avez besoin d'une traduction de ce document, veuillez contacter le directeur de la justice environnementale du MassDEP au numéro de téléphone indiqué ci-dessous.

Deutsch German

Dieses Dokument ist wichtig und muss sofort übersetzt werden. Wenn Sie eine Übersetzung dieses Dokuments benötigen, wenden Sie sich bitte an MassDEP's Director of Environmental Justice *(Direktor für Umweltgerechtigkeit in Massachusetts)* unter der unten angegebenen Telefonnummer.

Ελληνική Greek

Το έγγραφο αυτό είναι πολύ σημαντικό και πρέπει να μεταφραστεί αμέσως. Αν χρειάζεστε μετάφραση του εγγράφου αυτού, παρακαλώ επικοινωνήστε με τον Διευθυντή του Τμήματος Περιβαλλοντικής Δικαιοσύνης της Μασαχουσέτης στον αριθμό τηλεφώνου που αναγράφεται παρακάτω

Italiano Italian

Questo documento è importante e deve essere tradotto immediatamente. Se hai bisogno di tradurre questo documento, contatta il Direttore della Giustizia Ambientale di MassDEP al numero di telefono sotto indicato.

Język Polski Polish

Ten dokument jest ważny i powinien zostać niezwłocznie przetłumaczony. Jeśli potrzebne jest tłumaczenie tego dokumentu, należy skontaktować się z dyrektorem ds. sprawiedliwości środowiskowej MassDEP pod numerem telefonu podanym poniżej.

हिन्दी Hindi

यह दस्तावेज महत्वपूर्ण है और इसका अनुवाद तुरंत किया जाना चाहिए। यदि आपको इस दस्तावेज का अनुवाद कराने की जरूरत है, तो कृपया नीचे दिए गए टेलीफोन नंबर पर MassDEP के पर्यावरणीय न्याय निदेशक से संपर्क करें।

United States Department of the Interior

NATIONAL PARK SERVICE
Interior Region 1
North Atlantic-Appalachian

IN REPLY REFER TO:

April 17, 2026

Kevin Newton
Project Manager
U.S. Army Corps of Engineers
New England District, Regulatory Division
696 Virginia Rd
Concord, MA 01742

RE: NAE-2025-02456 Pleasant Street Bridge over Muddy Cove Brook

Dear Mr. Newton,

Thank you for your consultation about the project NAE-2025-02456 Pleasant Street Bridge over Muddy Cove Brook, a bridge replacement where Muddy Brook meets the Taunton River. For projects on designated segments of the Taunton River and tributaries within 0.25 miles, the Secretary of the Interior, through the NPS, is charged with administering Section 7 of the Wild and Scenic Rivers Act. It is the responsibility of the NPS to determine whether the proposed Project, either during or post-construction, would adversely affect the free flow and water quality of the designated river area or adversely affect the identified outstandingly remarkable values which qualified the river for designation.

Introduction

This Section 7 review and determination was conducted in accordance with the evaluation procedure documented in the Wild & Scenic Rivers Act: Section 7 (2004) reference guide compiled by the Interagency Wild and Scenic Rivers Coordinating Council.

Section 7 of the Wild and Scenic Rivers Act, 16 U.S.C. § 1278(a), states that:

"…no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which [a Wild and Scenic] river was established, as determined by the Secretary charged with its administration."

In 2009, 40 miles of the Taunton River was designated into the National Wild and Scenic Rivers System under Public Law 111-11. The river was designated for its free-flowing condition, water quality, and outstandingly remarkable values (ORVs) including hydrology, fish, ecology and biodiversity, scenery and recreation, history and archaeology. These ORVs are described in detail in the Taunton Wild and Scenic River Study Report and the Taunton Wild and Scenic River Stewardship Plan (2005).

Proposed Activity

MassDOT proposes to replace the existing bridge conveying Pleasant Street over Muddy Cove Brook where it meets the Taunton River. Proposed work includes installation of steel cofferdams, temporary dewatering, and replacement of the bridge structure within the footprint of the existing bridge. Roadway widening, sidewalks, and guardrails are also proposed.

Free-Flow

The Wild and Scenic Rivers Act defines "free-flowing" as existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. Although some

modifications (e.g., riprapping) may have existed on the date of designation, the intent of the Act is to protect rivers from modifications, such as unnatural armoring, that research shows can harm riverine ecosystems and downstream or opposing shorelines.

This project proposes both temporary and permanent impacts to Tidal waters of the US, including areas of land under Muddy Cove Brook and along the High Tide Line, that include rock fill, dewatering, and riprap scour protection. However, these hardening measures are mostly replacements of existing modifications for abutment and slope stability.

High Tide Line
Permanent impacts along the HTL, totaling approximately 109 lf, are associated with reestablishment of modified rock fill along the abutments and 54 lf of temporary impacts along the HTL are associated with installation of water controls and dewatering. Proposed water controls will be installed along either Bank of Muddy Cove Brook, maintaining a flow channel between the water control systems throughout construction. Areas to be stabilized with modified rockfill above the HTL are small, where it would be difficult to establish seed. For this reason, use of compost and seed in this location was determined to be impractical given the Site context.

Tidal Waters of the U.S.
Temporary and permanent impacts to WOTUS are required to replace the existing bridge abutments that are located within Muddy Cove Brook. Approximately 545 sf of temporary alteration is proposed associated with installation of erosion and dewatering controls to establish work areas and allow work to be completed in dry conditions. Approximately 941 sf of permanent impacts to WOTUS are required to reestablish modified rock fill along the abutments within Taunton River and Muddy Cove Brook. Additionally, 98.2 cy of dredging is proposed to excavate to the necessary depth to install the abutment footings. The Project is not expected to exceed 100 cy of dredging.

Streambed Restoration
Proposed streambed restoration will consist of installation of gravel borrow topped with up to 24” of streambed restoration material. This material will match the composition existing streambed material and will be placed at varying depths to match existing streambed elevations.

Hydraulic Widening
No widening in hydraulic opening is proposed for this project. In conversations between NPS and the applicant, and as shown in the applicant’s alternatives analysis, it was determined that the only feasible way to increase the bridge opening would be to impact the salt marsh on the northwest side of the crossing. The benefits of widening the hydraulic opening at this site are limited due to its location, as the entire site is located below the flood elevation of the 10-year storm. Therefore, NPS agrees that preserving the salt marsh is more beneficial than widening the bridge opening in this specific situation.

Water Quality

Erosion and Sedimentation Control
The Project Plans provide details and descriptions of erosion and sediment control measures. Erosion and sedimentation controls will be installed and maintained by the contractor where activities are proposed within 100-feet of Muddy Cove Brook and any associated wetland resource areas. The erosion controls will provide a limit of work barrier while preventing silt and sediments from migrating into or towards the resource areas. Erosion controls will consist of compost-filled filter tubes, coir logs, straw wattles, silt
fence, or an approved equivalent. Disturbed soils will be stabilized with a grass seed mix following construction.

Cofferdams
Filtered/treated dewatering effluent will be visually monitored during dewatering to avoid sediment discharges.

Stormwater Management
The existing stormwater management is considered country drainage and does not utilize catch basins or other BMPs. The Project does not propose the installation of stormwater infrastructure. Implementation of Stormwater Control Measures (SCM) was considered, and an alternatives analysis was evaluated; however, improvements are not feasible due to right-of-way constraints. The proposed work will result in a minor net increase in impervious area; therefore, the increase in peak rate of runoff will be negligible. The project is compliant with Massachusetts Stormwater Management Standards to the maximum extent practicable.

Outstandingly Remarkable Values (ORVs)

Based on the project narrative and site location, the following impacts to ORVs are expected:

Agriculture: No adverse effects expected.

Ecology and Biological Diversity: Site is within the range of the Tricolored Bat (*Perimyotis subflavus*) and Monarch butterfly (*Danaus plexippus*), which are listed as proposed endangered and proposed threatened species, respectively. No critical habitat for the Tricolored Bat or the Monarch butterfly is present at the Site. NPS requested that this site be monitored for nesting Northern Diamondback Terrapin (*Malaclemys terrapin)* as there is local evidence that they exist at this site. The applicant has agreed to coordinate with Massachusetts Division of Fisheries and Wildlife to implement a Northern Diamondback Terrapin protection plan.

Estuary: This site is adjacent to existing salt marsh; however salt marsh is excluded from the limits of disturbance.

Fisheries: Taunton River is a diadromous fish run and habitat for the Atlantic Sturgeon. A TOY restriction and other BMPs will be implemented to protect Atlantic Sturgeon habitat, as well as EFH for Atlantic Salmon and 13 other species, per consultation with NMFS.

History and Archaeology: This bridge is considered historic based on the Massachusetts Cultural Resource Information System; however, according to MassDOT's historic bridge specialist, this bridge is a standard build with no unique architectural or engineering features. Additionally, the Taunton Wild and Scenic River Stewardship Plan makes no note of this bridge's historical significance. Therefore, no adverse effects are expected.

Recreation and Scenery: No adverse effects expected.

Conclusion

The National Park Service has determined, pursuant to Section 7 of the Wild and Scenic Rivers Act, that the proposed Project would not have a "direct and adverse" effect on the Taunton Wild and Scenic River's free-flowing condition, water quality or outstandingly remarkable values, provided that the avoidance and minimization measures and actions cited below are fully and properly fulfilled for the duration of the Project.

Conditions:

- **Erosion Control**: No hay bales shall be used for erosion and sediment controls; certified weed-free, chemical-free straw bales are acceptable.
- **Fabrics**: Woven and mechanically bound biodegradable erosion control matting shall be used to stabilize all slopes steeper than 3H:1V. No plastic netting or welded joint poly-based matting shall be used.
- **Revegetation**: Native seed mixes and plant species shall be used to reestablish vegetation wherever possible. Plantings shall include a mix of woody shrub and tree species. No borrow, loam, or fill material shall contain invasive species.
- **Flow Maintenance**: Downstream flows shall always be maintained, with water from dewatering operations filtered to remove excessive sediments and discharged in a manner that prevents a release of turbid water into downstream areas. Entrapped fish or mussels shall be timely collected and relocated to the stream channel in a manner that promotes their safe recovery.
- **Construction***:
    - Prior to moving construction equipment into the project area, the contractor must take reasonable measures to ensure that each piece of equipment is free of soil, seeds, vegetative matter, or other debris that may contain seeds of non-native terrestrial and aquatic invasive species.
    - If painting, sand or water blasting any portion of the bridge is necessary, appropriate aprons shall be utilized to provide for complete containment of all paint, and/or sealant over-spray particles and other debris during bridge removal, installation, or maintenance operations.
    - Aprons, tarps, shrouds, and/or other containment devices must be in place during bridge demolition, bridge maintenance, bridge construction and/or bridge surfacing activities to capture falling debris, paints, welding slag, sealant overspray, asphalt deck materials, or other debris.
    - All concrete chunks, asphalt, grindings, concrete materials, wood, rebar, and other debris generated during demolition or construction that enters the river shall be immediately removed and taken to an appropriate disposal facility outside of the floodplain.
    - All tools, equipment, barricades, signs, surplus materials, and rubbish from the project work limits shall be removed upon project completion. All construction debris and litter must be completely removed off site and disposed of properly upon completion of the project.

- All debris, excess fill material and material excavated shall be disposed of at an approved upland location (above 100-year flood elevations). Disposal in wetlands, floodplains or within 1000 feet of the *Taunton River* is prohibited.

- **Stream Bed Restoration**: The stream bed shall be reconstructed to pre-construction elevations and contours using stockpiled native substrate or a well graded mix of materials that simulate natural stream conditions and allow for aquatic organism passage. Restored streams shall use a minimum of twenty-four (24) inches of native stream bed material. Riprap shall be used in the stream bed only where a shear stress analysis has determined that scour protection is necessary to ensure stability of an existing road, bridge, pipeline, or similar structure. For streams where riprap is necessary to prevent scour, the riprap shall be depressed (recessed) sufficiently to allow twenty-four (24) inches of native stream bed material over the riprap.
- **Fisheries:** Implement a TOY restriction on construction to protect migratory fish species and follow BMPs to protect EFH as required from NMFS.
- **Wildlife:** Coordinate with Massachusetts Division of Fisheries and Wildlife to implement a Northern Diamondback Terrapin protection plan for the protection of nesting terrapins.

*Typically, we would require that all fueling operations, lubricating, hydraulic topping off, fuel tank purging, and equipment maintenance/repairs shall be performed at an upland site outside of the one-hundred-year floodplain. However, the entirety of Pleasant Street in the vicinity of the Project is located within the 100-year floodplain, rendering this requirement unfeasible. Instead, the applicant has provided a Flood Contingency Plan that requires pollutants on site to be secured during flooding events; they will also be requiring secondary containment to prevent spills as well as a spill containment kit to have on site. NPS finds these actions acceptable given the impracticability of fueling outside of the 100-year flood zone.

Any changes to the proposed project as described, such as the plan set, special provisions, construction methods or schedule for in-stream work, will require consultation with the NPS before the work proceeds, and may also require additional Section 7 review/approvals.

Thank you for the opportunity to review this project. Please feel free to contact me if there are any questions regarding these comments at lauren_bonatakis@nps.gov.

Sincerely,

Lauren Bonatakis

Lauren Bonatakis
River Manager
National Park Service
Partnership Wild and Scenic Rivers Program
lauren_bonatakis@nps.gov
617-599-6802

14. Linear Transportation Projects.
Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to preconstruction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army

authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, “District Engineer’s Decision.” The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

2026 Nationwide Permits General Conditions

1. Navigation

a) No activity may cause more than a minimal adverse effect on navigation.

b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

NAE Note: *Compliance with this condition can be achieved by ensuring no unreasonable interference with navigation by the existence or use of any activity authorized by any Nationwide Permit (NWP), and no attempt made by a permittee to prevent the full and free use by the public of all navigable waters at or adjacent to any activity authorized by any NWP.*

2. Aquatic Life Movements

No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

NAE Note: *Compliance with this condition may be achieved by ensuring that during in-stream work, the low flow channel/thalweg remains unobstructed during periods of low flow, except when it is necessary to perform the authorized work. Additionally, for work in tidal waters, in-stream controls should be installed in such a manner that do not obstruct fish passage.*

3. Spawning Areas

Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (*e.g.,* through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas
Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds
No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

Maine Note: *Contact the Maine Department of Marine Resource (ME DMR) for further conservation measures if a proposed activity would result in excess turbidity (i.e., dredging) and is located within 100 feet of ME DMR shellfish areas. Reference material can be found at: https://dmr-maine.opendata.arcgis.com/datasets/mainedmr-molluscan-shellfish-2010/explore?location=43.733484%2C-69.767928%2C10.43 and https://mgs-maine.opendata.arcgis.com/datasets/maine-coastal-marine-geologic-environments/explore.*

6. Suitable Material
No activity may use unsuitable material (*e.g.,* trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes
No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects from Impoundments
If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows
To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows, including tidal flows. The activity must not restrict or impede the passage of normal or high flows including tidal flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (*e.g.,* stream restoration or relocation activities).

10. Fills Within 100-year Floodplains
The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

Massachusetts Note: *For activities located within the Commonwealth of Massachusetts, activities may be required to comply with the Bordering Lands Subject to Flooding provisions of the Commonwealth's Wetland Protection Act. Applicants should contact Massachusetts Department of Environmental Protection to determine whether this provision applies to their proposed activity/ies.*

11. Equipment
Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

If mats are used to minimize soil disturbance, the affected areas must be returned to pre-construction elevations, and revegetated as appropriate. In circumstances where the use of mats has caused significant soil compaction efforts using techniques (*e.g.,* soil reaeration techniques) to break up the compaction should be employed to return the soil to a pre-construction state prior to returning to pre-construction elevations.

NAE Notes: *(1) Compliance with this condition may be achieved through the implementation of best management practices outline in NAE's "Construction Mat Best Management Practices" document available at https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Permit-Resources/.*

(2) Compliance with this condition may be achieved by ensuring that construction equipment such as barges in tidal waters always provide adequate clearance above the substrate to avoid impacts to SAS during all tides.

(3) Compliance with this condition may be achieved by ensuring that construction equipment that would cross or access streams utilizes temporary bridges, spans, construction mats, culverts, or cofferdams to minimize disturbance to the waterway.

12. Soil Erosion and Sediment Controls
Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

NAE Note: *Compliance with this condition may be achieved by ensuring that all discharge points back into waters of the U.S., including wetlands use appropriate energy dissipaters and erosion and sedimentation control BMPs. Controls that are biodegradable can be left in place, but should be removed if they are not biodegradable.*

Temporary controls should be removed upon completion of work, but not before all exposed soil and other fills and any work waterward of the OHWM are permanently stabilized. Once permanently stabilized, temporary controls should be removed as soon as possible. Sediment and debris collected by these controls should be removed and placed at an upland location and in a manner that will prevent its later erosion into a waterway or wetland.

Massachusetts Note: *In Massachusetts, compliance with this condition may be achieved by ensuring, as applicable, that all activities are compliant with the State of Massachusetts' Stormwater Management Standards at 314 CMR 9.06(6)(a)-(f) and the State of Massachusetts' Stormwater Handbook.*

13. Removal of Temporary Structures and Fills
Temporary structures must be removed to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

NAE Note: *Compliance with this general condition may be achieved by underlying temporary fills with geotextile fabric which may help to facilitate the restoration to pre-construction elevations.*

14. Proper Maintenance
Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

NAE Note: *Compliance with this general condition may be achieved by the complete removal, cutting, and/or driving to three feet below the substrate of* d*erelict, degraded, or abandoned piles and sheet piles located in navigable waters of the U.S., except for those inside existing work footprints for piers to prevent interference with navigation. Existing creosote piles that are affected by project activities may be completely removed if practicable. In areas of fine-grained substrates, piles may be removed by the direct, vibratory or clamshell pull method to minimize sedimentation, and turbidity impacts and prevent interference with navigation from cut piles. Removed piles should be disposed of in an upland location landward of MHW or OHW and not in wetlands, tidal wetlands, their substrate, or mudflats.*

15. Single and Complete Project
The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers
a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the

appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or Study River (*e.g.*, National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

NAE Note: *See also: Regional Condition C, Additional PCN Requirement (Wild and Scenic Rivers).*

17. Tribal Rights
No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species
a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of “effects of the action” for the purposes of ESA section 7 consultation.

b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective Federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (*e.g.*, an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal permittee should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this

general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their web pages at http://www.fws.gov/ or http:// www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

NAE Note: *For information on how to comply with General Condition 18, please visit our website at https://www.nae.usace.army.mil/missions/regulatory/endangered-species-act/.*

Maine Note: *Federal agencies should refer to "Multiple Federal Agency & Lead Federal Agency Best Practices" when a Corps permit is required, which can be found on the Corps' webpage at: www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit. (This is a pending document and will be published on our website when completed.)*

19. Migratory Birds and Bald and Golden Eagles

The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties

a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district

engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective Federal agency is responsible for fulfilling its obligation to comply with section 106.

c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

d) Where the non-federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and so notified the Corps, the non-federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects on historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

NAE Note: *The following link to the Corps' website provides SHPO and THPO contact information and additional procedures to expedite Corps regulatory review regarding the NHPA. Please contact the appropriate SHPO and/or THPO based on the geographic location of the regulated activity: https://www.nae.usace.army.mil/Missions/Regulatory/Historic-and-Tribal-Resources/.*

21. Discovery of Previously Unknown Remains and Artifacts
Permittees that discover any previously unknown historic, cultural or archaeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters
Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57, and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation

The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (*i.e.*, on site).

b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (*e.g.*, conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (*e.g.*, riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the

NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another Federal agency holds an easement, the district engineer will coordinate with that Federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

6) Compensatory mitigation requirements (*e.g.*, resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or

scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

NAE Note: *Applicants are encouraged to utilize the Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS) in order to determine which in-lieu fee programs and/or mitigation banks have a sufficient amount of appropriate and available credits which they may propose to use to offset their proposed activity's unavoidable impacts to waters of the U.S., including wetlands. RIBITS is available at https://ribits.ops.usace.army.mil/ords/f?p=107:2:::::::. See also: Regional Condition I, Compensatory Mitigation.*

24. Safety of Impoundment Structures
To ensure that all impoundment structures are safely designed, the district engineer may require non-federal applicants to demonstrate that the structures comply with established state or Federal dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality
a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed activity which may result in any discharge from a point source into waters of the United States must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed activity which may result in any discharge from a point source into waters of the United States in order for the activity to be authorized by an NWP.

b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed activity which may result in any discharge from a point source into waters of the United States is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge into waters of the United States, the permittee must submit a copy of the certification to the district engineer. The discharge into waters of the United States is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied (*i.e.,* by the issuance of a water quality certification or a waiver and completion of the Section 401(a)(2) process).

c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

NAE Note: *For information concerning how to apply to EPA for a Water Quality Certification for activities located within Tribal lands or within lands of exclusive Federal jurisdiction, please see: https://www.epa.gov/cwa-401/resources-when-epa-acts-certifying-authority-under-section-401 and/or contact: R1CWA401@epa.gov.*

Connecticut Note: *For information concerning how to apply to CTDEEP for a Water Quality Certification, please see: https://portal.ct.gov/deep/permits-and-licenses/factsheets-inland-water/401-water-quality-certification-fact-sheet.*

Maine Note: *For information concerning how to apply to LUPC or MEDEP for a Water Quality Certification, please see: https://www.maine.gov/dep/water/wd/wqc/.*

Massachusetts Note: *For information concerning how to apply to MassDEP for a Water Quality Certification, please see: https://www.mass.gov/lists/wetlands-permitting-forms.*

New Hampshire Note: *For information concerning how to apply to NHDES for a Water Quality Certification, please see: https://www.des.nh.gov/water/rivers-and-lakes/water-quality-certification.*

Rhode Island Note: *For information concerning how to apply to RIDEM for a Water Quality Certification, please see: https://dem.ri.gov/sites/g/files/xkgbur861/files/2025-06/wqcheck.pdf.*

Vermont Note: *For information concerning how to apply to VTDEC for a Water Quality Certification, please see: https://dec.vermont.gov/act250/watershed/business-support/water-quality-certification-section-401.*

26. Coastal Zone Management

In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

NAE Note: *If an individual state coastal zone management consistency concurrence is required, applicants should submit a consistency certification to the state (see 15 CFR 930.31(d)) at the same time as the PCN is submitted to the Corps, or shortly thereafter.*

Connecticut Note: *For information concerning how to apply to CTDEEP for a coastal zone management consistency certification, please see: https://portal.ct.gov/deep/coastal-resources/coastal-permitting/coastal-consistency.*

Maine Note: *For information concerning how to apply to the Maine Office of Community Affairs for a coastal zone management consistency certification, please see: https://www.maine.gov/dmr/programs/maine-coastal-program/federal-consistency-review.*

Massachusetts Note: *For information concerning how to apply to Mass CZM for a coastal zone management consistency certification, please see: https://www.mass.gov/federal-consistency-review-program.*

New Hampshire Note: *For information concerning how to apply to NHDES for a coastal zone management consistency certification, please see: https://www.des.nh.gov/water/coastal-waters/federal-consistency.*

Rhode Island Note: *For information concerning how to apply to CRMC for projects within the coastal zone, please see: https://www.crmc.ri.gov/applicationforms.html and https://www.crmc.ri.gov/regulations/fed_consistency.pdf.*

27. Regional and Case-by-Case Conditions
The activity must comply with any regional conditions that may have been added by the division engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits
The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

a) The total acreage of loss of waters of the United States for a single and complete project cannot exceed the acreage limit of the NWP with the highest specified acreage limit when multiple NWPs are used to authorize an activity.

b) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States for that single and complete project cannot exceed that specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14 (which has an acreage limit of 1/3-acre in tidal waters), with associated bank stabilization authorized by NWP 13 (which does not have a specified acreage limit), the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

c) If two or more of the NWPs used to authorize the single and complete project have specified acreage limits, the acreage loss of waters of the United States authorized by each of those NWPs cannot exceed the specified acreage limits of each of those NWPs. For example, if a commercial development is constructed under NWP 39 (which has a 1/2-acre limit), and the single and complete project

includes the filling of a ditch authorized by NWP 46 (which has a 1-acre limit), the maximum acreage loss of waters of the United States for the construction of the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States caused by the combination of the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications

If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____

(Transferee)

_____

(Date)

30. Compliance Certification

Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The successful completion of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States
If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

NAE Note: *Refer to the New England District's Section 408 Program webpage that can be found at: https://www.nae.usace.army.mil/Missions/Section-408/. See also: Regional Condition B, Additional PCN Requirement (Federal Projects).*

32. Pre-Construction Notification
a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential

to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

b) Contents of the Pre-Construction Notification: The PCN must be in writing and include the following information:

1) Name, address and telephone numbers of the prospective permittee;

2) Location of the proposed activity;

3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (*e.g.,* a conceptual plan), but do not need to be detailed engineering plans);

5) The PCN must include a delineation of waters, wetlands, and other special aquatic sites on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate. For NWP 27 activities that require PCNs because of other general conditions or regional conditions imposed by division engineers, see Note 2 of that NWP;

NAE Note: *To comply with the above GC 32(5), the following methodologies should be utilized:*

(a) Wetlands should be delineated in accordance with the Corps Wetlands Delineation Manual and the most recent Northcentral/Northeast Regional Supplement. Wetland delineation and jurisdiction information can be found at: www.nae.usace.army.mil/missions/regulatory/jurisdiction-and-wetlands and https://www.usace.army.mil/Media/Announcements/Article/4262089/1-august-2025-us-army-corps-of-engineers-enhances-aquatic-resource-delineation/*.*

(b) Refer to the "Best Practices for Jurisdictional Determinations and Wetland Delineations," which can be found on the Corps webpage at: https://www.nae.usace.army.mil/missions/regulatory/state-general-permits/maine-general-permit/. (This is a pending document and will be published on our website when completed.)

(c) The ordinary high water mark should be delineated (on both sides) when streams, rivers, non-tidal open waters are present on the project site. Ordinary high water mark guidance can be found in RGL 05-05 (https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll9/id/1253). For complex, atypical, or problematic sites see: https://www.erdc.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/486085/ordinary-high-water-mark-ohwm-research-development-and-training/.

(d) Vegetated shallows should be delineated when present on the project site. Vegetated shallow survey guidance and maps can be found on the Corps webpage at: https://www.nae.usace.army.mil/Missions/Regulatory/Jurisdiction-and-Wetlands/.

(e) All Essential Fish Habitat should be delineated when present on the project site. EFH survey guidance can be found in the current EFH programmatic, which can be found on the Corps webpage at https://www.nae.usace.army.mil/Missions/Regulatory/Essential-Fish-Habitat/.

6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the compensatory mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

c) Form of Pre-Construction Notification: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

d) Agency Coordination:

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for:

(i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States;

(ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and

(iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

Maine Note: *The Corps will additionally coordinate with the State of Maine on all activities that require a waiver.*

(3) When agency coordination is required, the district engineer will immediately provide (*e.g.,* via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

Regional Conditions

The U.S. Army Corps of Engineers (Corps) New England District Regulatory Division issues the following Regional Conditions (RCs) to ensure that activities authorized by the 2026 Nationwide Permits (NWPs) in the New England states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont will not cause more than minimal adverse environmental impacts, both individually and cumulatively. Before the New England District will verify an activity under one or more NWPs, the activity must be demonstrated to comply with the applicable NWP terms and all applicable NWP General Conditions (GCs) and RCs. Prior to commencement of a "non-notifying" activity (i.e., activities authorized by NWPs which do not require submission of a pre-construction notification [PCN]), the proponent (i.e., the person and/or the entity performing the work) is responsible for ensuring the activity meets all applicable:

- Terms of the NWP
- GCs
- RCs
- State Water Quality Certification, if applicable
- State Coastal Zone Consistency, if applicable

PCN Summary Table. The following activities may require a PCN regardless of the terms of the applicable NWP. Please read the applicable RCs to determine if a PCN is required.

Applicable to All New England States	
Exceedance of loss thresholds within streams, tidal/non-tidal wetlands, tidal submerged aquatic vegetation, mudflats, and intertidal areas	See RC A
Located within, or within the vicinity of a Federal Project	See RC B
Located within, or within the vicinity of a Wild and Scenic River	See RC C
Involving discharges of temporary fill material	See RC D
Involving slip lining	See RC E
Involving stream crossings	See RC F
Located within Essential Fish Habitat	See RC J
Applicable to Specific New England States	
Activities within Time-of-Year Restrictions	See RCs N, O, S, U, V, W
Located within the Saint John and Saint Croix River basins (Maine)	See RC P
Authorized by NWP 48, Commercial Shellfish Mariculture Activities and within the State of Maine > 5 acres	See RC Q
Located within Important or Rare Resources within the State of Maine	See RC R
Discharges of fill >10 cubic yards in Lake Champlain and Lake Memphremagog and/or their adjacent wetlands (Vermont)	See RC X

Regional Conditions

The following RCs apply to all applicable NWPs in **all New England States** (unless otherwise specified):

A. Additional PCN Requirement (Specific Resources): A PCN is required for any proposed activities that would result in the loss of waters of the U.S. that exceed the listed thresholds to the following aquatic resources if a PCN is not already required by the NWP.

Aquatic Resource	Threshold
Non-tidal Wetlands	4,356 square feet (1/10-acre)
Tidal and Non-Tidal Stream	200 linear feet or 3/100-acre (whichever is less)
Tidal Wetland	500 square feet
Tidal Submerged Aquatic Vegetation (SAV)	25 square feet
Mudflat	1,000 square feet
Intertidal	1,000 square feet

B. Additional PCN Requirement (Federal Projects): A PCN is required for any proposed activities that would involve the temporary or permanent occupation of, or alteration of, a federal project (including, but not limited to, a levee, dike, floodwall, channel, anchorage, breakwater, seawall, bulkhead, jetty, wharf, pier, or other work built or maintained but not necessarily owned by the United States). This includes all structures and work in, over, or under a Corps' federal navigation project (FNP) or in the FNP's buffer zone. The buffer zone is an area that extends from the horizontal limits of the FNP to a distance three times the FNP's authorized depth.

The activity may also require review and approval by the Corps pursuant to 33 USC 408 (Section 408 Permission). The applicant may reach out to the points of contact listed here: https://www.nae.usace.army.mil/Missions/Section-408/ and https://www.nan.usace.army.mil/Missions/Regulatory/Section-408/ (for activities located within the Lake Champlain watershed) and consult the National Channel Framework mapper: https://experience.arcgis.com/experience/b413139f18c046009ebcf62abea941dd/page/Map/. For activities which require a Section 408 permission, verification under an NWP will not be issued prior to the decision the Section 408 permission requires. Any structure or work constructed in an FNP, or its buffer zone shall be subject to removal at the owner's expense prior to any future Corps dredging or hydrographic surveys.

Applicants should contact the Corps Real Estate Division (https://www.nae.usace.army.mil/Missions/Real-Estate-Division/) at (978) 318-8585 for work that would occur on or would potentially affect a Corps property (or properties) and/or Corps-controlled easements. Work may not commence on Corps properties and/or Corps-controlled easements until they have received any required

Corps real estate documents demonstrating site-specific permission to perform work.

A PCN is not required if an applicant has previously obtained a Section 408 permission for their proposed activities, or a determination from the Corps that a Section 408 permission is not required for their proposed activities, and the proposed activities qualify for a non-notifying NWP.

C. Additional PCN Requirement (Wild and Scenic Rivers): A PCN is required under NWP GC 16, Wild and Scenic Rivers, and for: 1) any proposed activities that would be located in and within 1/4-mile up- or downstream of a Wild and Scenic River (WSR) segment, or in tributaries within 1/4-mile of a WSR segment; 2) any proposed activities that would be located in wetlands within 1/4-mile of a WSR segment; and 3) any proposed activities that have the potential to alter free-flowing characteristics in a WSR segment. Applicants should utilize http://www.rivers.gov/ for the most up-to-date WSR designations.

Note: Applicants may coordinate with the Federal agency that has direct management responsibility of the WSR segment or tributary their proposed activity would be within 1/4-mile of prior to submitting a PCN to the Corps. This regional condition does not require a PCN to be submitted if that Federal agency determines that the proposed activity would not adversely affect the subject WSR.

D. Additional PCN Requirement (Temporary Fills): A PCN is required for any proposed activities that would involve the discharge of temporary fill (33 CFR 323.2(e) and (f)) greater than 1/10-acre to be left in place in non-tidal wetlands for more than one growing season. The growing season is generally defined as April 1 to September 30 (See the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* for more information about determining growing season. https://www.nae.usace.army.mil/Missions/Regulatory/Jurisdiction-and-Wetlands/Wetland-Delineation-Manual/).

Note 1: The Corps will determine on a case-by-case basis, after evaluating site-specific and activity-specific circumstances whether temporary construction mats proposed for use are considered as temporary fill.

Note 2: For linear projects, crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization (33 CFR 330.2(i)). Therefore, each crossing of a water of the U.S., including wetlands could have up to 1/10-acre of temporary fill without requiring the submittal of a PCN. *Applicants should be aware that the definition of what constitutes a single and complete project per state regulations may differ from the Corps' definition. Applicants should consult with the state in order to determine state requirements. *

E. Additional PCN Requirement (Slip Lining): A PCN is required for any proposed activity that involves slip lining a stream crossing that is not currently meeting the stream crossing BMPs found in Regional Condition F (e.g., slip lining and invert-lining).

F. Additional PCN Requirement (Stream Crossing Standards): A PCN is required for any proposed stream crossing activities that cannot comply with the below "Stream Crossing Best Management Practices (BMPs)" unless the district engineer provides the applicant written verification removing the below requirements.

1. The width of the crossing shall be greater than or equal to 1.2 times the bank full width.
2. The crossing shall be embedded greater than or equal to 2 feet and/or at least 25 percent of the conveyance's height.
3. The crossing shall be constructed with a natural bottom substrate, as applicable.
4. The crossing shall match the gradient (i.e., slope) of the natural stream channel profile.
5. The crossing shall meet an openness ratio of greater than 0.82 feet.

Regardless of whether a proposed crossing can implement the above BMPs, the applicant should first coordinate with the appropriate state office to obtain required or recommended alternate stream crossing BMPs, prior to submitting a PCN to the Corps. If a stream crossing is designed to meet the standards required or recommended by the appropriate state agency for which the proposed activity is located within, those standards can serve in-lieu of these BMPs and submittal of a PCN is not required.

Note: Below are links to the stream crossing standards/guidelines for those New England states that have published such standards/guidelines. Applicants are highly encouraged to contact their state for additional information regarding those requirements and/or recommendations, as state requirements may be more stringent than the above listed BMPs.

Connecticut: CTDEEP Inland Fisheries Division Habitat Conservation and Enhancement Program's Stream Crossing Guidelines (https://portal.ct.gov/-/media/DEEP/fishing/restoration/StreamCrossingGuidelinespdf.pdf)

Maine: Maine Interagency Stream Crossing Guidelines: (https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/) and CoastWise (https://www.maine.gov/dmr/sites/maine.gov.dmr/files/inline-files/CoastWiseManualJuly2023_updated.pdf)

Massachusetts: Massachusetts River and Stream Crossing Standards as implemented through 314 CMR 9.06(2)(b).

(https://www.mass.gov/doc/massachusetts-river-and-stream-crossing-standards/download)

New Hampshire: New Hampshire RSA 482-A (https://www.gc.nh.gov/rsa/html/L/482-A/482-A-mrg.htm)

Rhode Island: Regardless of whether a proposed crossing can meet the above BMP's, all wetland and watercourse crossings in Rhode Island are evaluated on a site-by-site basis that account for on-site environmental characteristics by the state. For freshwater crossings, please contact them using the following link: https://dem.ri.gov/environmental-protection-bureau/customer-and-technical-assistance/pre-application-meetings. If a proposed crossing is within the coastal zone and under the jurisdiction of CRMC, please contact them using the following link: https://www.crmc.ri.gov/contact.html.

Vermont: *Vermont Stream Alteration Rule and General Permit* available at https://dec.vermont.gov/watershed/rivers/river-management#rules.

G. Aquaculture: Applicants proposing new aquaculture operations or modifications of existing aquaculture operations are required to coordinate with the appropriate U.S. Coast Guard (USCG) Sector for siting review, Navigation Risk Assessment (NRA), and navigation risk mitigation needs.

1. Coordination with the USCG can be completed by contacting via email:

   Sector Northern New England: (Maine, New Hampshire, Vermont, and Northeastern New York, Lake Champlain) D01-SMB-SecNNE-Waterways@uscg.mil

   Sector Boston: (New Hampshire border southward to Plymouth, Massachusetts) D01-SMB-SECBOSWaterways@uscg.mil

   Sector Southeastern New England: (Rhode Island and Southeastern Massachusetts, Cape Cod, and Islands) SENEWWM@uscg.mil

   Sector Long Island Sound: (New York to Connecticut border at Port Chester, Connecticut to Rhode Island border at Watch Hill) SECLISSPWMarineEvent@uscg.mil

   Sector New York: (Sandy Hook, New Jersey north through Port of New York/New Jersey, Hudson River to Whitehall, NY (south of Lake Champlain) D01-SMB-SecNY-Waterways@uscg.mil

   The applicant shall provide the following information to facilitate completion of the NRA: applicant name/company affiliation, license/lease type (commercial, research, shellfish, kelp, new or modified), nautical chart, detailed drawing with

dimensions, time of year, potential lighting/marking, types/materials of structures in water, planned anchoring, cultivation techniques (number of weekly/monthly visits, vessel tending/type), and any other significant information.

If the applicant receives a medium or high-risk assessment, they shall coordinate with the Corps and apply safety risk mitigations. The USCG will refer the project to the Corps unless the Corps makes the determination that it may proceed.

Any safety lights and signals prescribed by the USCG, through regulations or otherwise, must be installed and maintained at the permittee's expense. For required permitting, the applicant shall contact USCG First District Private Aid Program Manager through D01-SMB-D01PrivateAtoN@uscg.mil. Only actual AtoNs are permitted; floats, balls, markers, mooring balls and 'highflier flags' are not considered Aids to Navigation (AtoN). See: http://www.usharbormaster.com.

Applicants shall notify NOAA's National Ocean Service (NOS) Nautical Data Branch Office of Coast Survey to initiate chart and Coast Pilot corrections. See: https://nauticalcharts.noaa.gov/. Applicants must also notify NOAA on removal. See Note 2.

2. For marine safety information during construction or other significant periods, applicants may use the First District's Marine Safety Information form and email to: D01-SMB-LNM@uscg.mil.

Note 1: If a PCN is required, applicants shall include documentation of all required coordination with their PCN.

Note 2: For nautical chart and coast pilot updates, activities owners should use the status report form at https://nauticalcharts.noaa.gov/charts/docs/charts-updates/USACE+Permit+Status+Report.pdf. For aquaculture activities owners should use: https://nauticalcharts.noaa.gov/charts/docs/charts-updates/Artificial+Reef+Aquaculture+Status+Report.pdf to notify the Office of Coast Survey of the project completion. The form should be emailed to ocs.ndb@noaa.gov and should include a copy of as-built drawings.

H. Hydrology: Permanent wetland crossings shall be constructed in such a manner as to prevent excessive ponding or drying on either side of the authorized crossing after completion of the work. Measures shall be taken to maintain the existing hydrology. Such measures may include road cross drains such as culverts that are appropriately sized and placed at intervals to maintain the existing hydrology of the contiguous wetland.

I. Compensatory Mitigation: In addition to the requirements of NWP GC 23, Mitigation, compensatory mitigation requirements for unavoidable impacts to waters of the U.S. will be evaluated in accordance with the latest version of the *New England District Compensatory Mitigation Standard Operating Procedures* (https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/).

J. Essential Fish Habitat: Essential Fish Habitat (EFH) is defined as those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity (16 U.S.C. 1802).

The following NWPs have been determined to result in no more than minimal adverse effects, provided the permittee complies with all terms and conditions of the NWP as applicable to the activity, including all activity thresholds and activity-specific Conservation Recommendations (CRs) identified in the current EFH and Fish and Wildlife Coordination Act (FWCA) Programmatic Consultation (https://www.nae.usace.army.mil/Missions/Regulatory/Essential-Fish-Habitat/). The National Marine Fisheries Service (NMFS) has granted General Concurrence (50 CFR 600.920(g)) for the below listed NWPs, and these activities do not require activity-specific EFH consultation.

Nationwide Permit	Authorized Activities with General Concurrence
NWPs: 1, 4, 5, 6, 9, 10, 11, 15, 16, 19, 20, 27, 28, 32, 35, & 41	All authorized activities
NWP 3	Parts (a) and (c) (i.e., non-notifying)
NWP 12	Section 404 only activities that do not result in the loss of greater than 1/10-acre and is not a new pipeline greater than 250 miles (i.e., non-notifying)
NWP 13	Activities less than 500 linear feet in length with a discharge of less than one (1) cubic yard per running foot below the ordinary high water mark or high tide line, and no discharges into special aquatic sites (i.e., non-notifying)
NWP 14	Activities less than 1/10-acre with no discharges into special aquatic sites (i.e., non-notifying)
NWP 18	Activities that discharge less than ten (10) cubic yards of fill material below the plane of the ordinary high water mark or high tide line with no discharges into special aquatic sites (i.e., non-notifying)
NWP 22	Activities associated with vessels that are not listed or eligible for listing on the National Register of Historic Places and not located within special aquatic sites (i.e., non-notifying)
NWP 23	Activities not identified as notifying within Regulatory Guidance Letter 05-07 (i.e., non-notifying)
NWP 33	Section 404 only activities (i.e., non-notifying)
NWP 36	Activities that discharge less than 50 cubic yards of fill material and are less than 20 feet wide (i.e., non-notifying)

NWP 43	Activities that do not involve the expansion or construction of a new stormwater management facility (i.e., non-notifying)
NWP 48	Activities that are not the installation of a new operation and do not directly affect greater than 1/2-acre of submerged aquatic vegetation (i.e., non-notifying)
NWPs: 51 & 60	Activities that do not result in the loss of greater than 1/10-acre (i.e., non-notifying)
NWP 54	Maintenance activities (i.e., non-notifying)
NWPs: 57 & 58	Section 404 only activities that do not result in the loss of greater than 1/10-acre (i.e., non-notifying)

For non-federal applicants whose proposed activities would be located within EFH and that do not require a PCN per the language of the NWP or per any other general or regional condition (i.e., non-notifying), the applicant shall review the current EFH and FWCA Programmatic Consultation (https://www.nae.usace.army.mil/Missions/Regulatory/Essential-Fish-Habitat/) to ensure their proposed activity complies with all applicable CRs.

1. A PCN is required for any proposed project that would exceed the activity thresholds that are included within the current EFH and FWCA Programmatic Consultation. Any proposed project that exceeds an activity threshold requires preliminary coordination/project-specific consultation.

2. For all activities that do not exceed the activity-based thresholds included within the current EFH and FWCA Programmatic Consultation, the project proponent shall implement the activity-specific applicable CRs. If the applicable CRs cannot be implemented, a PCN must be submitted to the Corps, and work may not commence until the Corps verifies the project under the applicable NWP(s).

Federal applicants should follow their own procedures for compliance with the Magnuson-Stevens Fishery Conservation and Management Act and Fish and Wildlife Coordination Act.

Note 1: For activities proposed for authorization by an NWP that requires the submittal of a PCN, applicants are encouraged to review the current EFH and FWCA Programmatic Consultation and design their proposed activities with the activity-based thresholds and incorporate applicable CRs.

Note 2: Applicants can utilize the NMFS EFH mapper to determine if their proposed activities are located within EFH: https://www.habitat.noaa.gov/apps/efhmapper/. Applicants can also utilize the current EFH and FWCA Programmatic Consultation (https://www.nae.usace.army.mil/Missions/Regulatory/Essential-Fish-Habitat/) for guidance on non-tidal waterbodies with diadromous fish.

K. Invasive Species: The introduction, spread, or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or into areas adjacent to the project site caused by the site work shall be avoided. Native, non-invasive vegetation must be used unless otherwise authorized by the Corps, and shall not contain any species listed in Appendix K ("Invasive and Other Unacceptable Plant Species") of the current *New England District Compensatory Mitigation Standard Operating Procedures* located at: https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/. Equipment shall be thoroughly cleaned before and after project construction to prevent the spread of invasive species. This includes, but is not limited to, tire treads and construction mats. Information about how to avoid the spread of invasive species can be found at: https://www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species.

L. NWP Documentation On-Site: The permittee shall ensure that a copy of their verification letter (for notifying NWPs only) and applicable NWP with all applicable GCs and RCs are at the worksite whenever work is being performed, and that all personnel performing work are fully aware of its terms and conditions.

M. Abandonment: If the permittee decides to abandon the activity authorized by an NWP, unless such abandonment is merely the transfer of property to another party, the permittee may be required to restore the area to the satisfaction of the Corps.

State-Specific Regional Conditions

The following RCs apply to all applicable NWPs in the **State of Connecticut**:

N. Regional Condition N is reserved for the state of Connecticut.

The following RCs apply to all applicable NWPs in the **State of Maine**:

O. Regional Condition O is reserved for the state of Maine.
P. Regional Condition P is reserved for the state of Maine.
Q. Regional Condition Q is reserved for the state of Maine.
R. Regional Condition R is reserved for the state of Maine.

The following RCs apply to all applicable NWPs in the **Commonwealth of Massachusetts**:

S. Additional PCN Requirement (Time-of-Year Windows and Restrictions): A PCN is required for any proposed activity located in waters of the U.S. (excluding wetlands) that does not comply with the following time-of-year (TOY) restrictions, unless the Massachusetts Division of Marine Fisheries (MA DMF) provides alternate TOY restrictions. The TOY restrictions stated in Appendix B of the MA DMF Technical Report TR-47* can apply instead if they are provided for a specific waterbody where the activity is proposed. Additionally, if MA DMF provides project-specific TOY restrictions those may also apply in lieu of the TOY restrictions listed below.

	TOY Work Restriction	TOY Work Window
Non-Tidal Waters	October 1 to June 30	July 1 to September 30
Tidal Waters and Diadromous Fish Migratory Habitat**	January 15 to November 15	November 16 to January 14

*Massachusetts Department of Marine Fisheries (MA DMF) Technical Report, TR-47, available at: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit/

**Information regarding diadromous fish migratory habitat can be obtained from the following GIS website maintained by the Commonwealth of Massachusetts: https://www.mass.gov/info-details/massgis-data-diadromous-fish.

For proposed activities that require a PCN, applicants should first coordinate with the MA DMF to obtain TOY windows and/or restrictions for their activity. Applicants should include documentation of this coordination when submitting their PCN.

Any proposed activity located in waters of the U.S. (excluding wetlands) shall be completed entirely "in-the-dry" or be isolated from active flows/the water column using temporary measures (i.e., cofferdams, sandbags, flume pipes, etc.) to the maximum extent practicable. The term "in-the-dry" means work that is done under dry conditions, e.g., work behind cofferdams or when the stream or tide is waterward of the work.

T. Underwater Archaeological Resources: Under Massachusetts General Law Ch. 6, s.'s 179-180, and Ch. 91, s. 63, the Board of Underwater Archaeological Resources (BUAR) has statutory jurisdiction within state waters and is the sole trustee of the Commonwealth's underwater heritage, charged within the responsibility of encouraging the discovery and reporting, as well as the preservation and protection of underwater archaeological resources. Underwater archaeological resources located within the waters of the Commonwealth of Massachusetts are property of the Commonwealth, which holds title to these resources and retains regulatory authority over their use. Under Massachusetts General Law, no person, organization or corporation may "remove, displace, damage, or destroy" any underwater archaeological resources located within the Commonwealth's submerged lands except through consultation with the BUAR and in conformity with the permits it issues. https://www.mass.gov/orgs/board-of-underwater-archaeological-resources.

The following RCs apply to all applicable NWPs in the **State of New Hampshire**:

U. Regional Condition U is reserved for the state of New Hampshire.

The following Regional Conditions apply to all applicable NWPs in the **State of Rhode Island**:

V. Regional Condition V is reserved for the state of Rhode Island.

The following Regional Conditions apply to all applicable NWPs in the **State of Vermont**:

W. Regional Condition W is reserved for the state of Vermont.
X. Regional Condition X is reserved for the state of Vermont.

REGION 1
BOSTON, MA 02109

December 18, 2025

Ms. Tammy Turley
Chief, Regulatory Division
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742

Subject: Tribal Nations and Lands of Exclusive Federal Jurisdiction Water Quality Certification for the proposed 2026 Nationwide Permits

Dear Ms. Turley,

On June 18, 2025, EPA Region 1 received a request for water quality certification of the U.S. Army Corps of Engineers' (Corps) proposed 2026 Nationwide Permits (NWPs) that may result in a discharge in waters of the United States within the Boundaries of an Indian Country or lands of exclusive federal jurisdiction (LEFJ) that are surrounded by the states of Maine, Massachusetts, Rhode Island, and Connecticut. In that notification, the Corps requested that EPA issue a Clean Water Act (CWA) Section 401 water quality certification for the NWPs.

CWA section 401(a)(1) requires applicants for Federal permits and licenses that may result in discharges into waters of the United States to obtain certification that the discharge will comply with applicable provisions of the CWA, including sections 301, 302, 303, 306 and 307. The enclosed CWA section 401 water quality certification decision applies to Tribal Lands and LEFJ in relevant respects where EPA is the certifying authority.[1] EPA reviewed the draft NWPs and applicable conditions and has determined that any discharge from activities authorized by the proposed NWPs as certified will comply with water quality requirements, as defined at 40 CFR 121.1(n), subject to the applicable enclosed conditions pursuant to Section 401(d). For the water quality certification decision on NWP 45 on behalf of Federally recognized Tribes in Maine and LEFJ in Maine, EPA denies water quality certification. For work that proposes activities authorized under NWP 45 that may occur on Tribal lands in Maine or on LEFJ in Maine, an individual water quality certification will be required.

[1] 33 U.S.C. 1341(a)(1). Please contact EPA Region 1 for current information regarding the jurisdictions where this 401 certification decision applies at R1cwa401@epa.gov.

REGION 1
BOSTON, MA 02109

Please provide this certification to any project proponent (or their designated contractor) contacting the Corps with applicable projects that may be authorized under the NWPs. If a project fails to meet the enclosed conditions, the applicant must contact EPA Region 1 at R1cwa401@epa.gov for a project-specific certification. This email may be used to submit pre-filing meeting requests, requests for certification, or for any certification-related questions.

EPA appreciates our long-standing partnership and coordination in implementing Section 401 of the CWA. If you have any questions, please contact Haley Miller at miller.haley@epa.gov or 617-918-1169.

Sincerely,

ANDREA TRAVIGLIA

Digitally signed by ANDREA TRAVIGLIA
Date: 2025.12.18 13:43:09 -05'00'

Andrea Traviglia
Acting Section Chief
Water Quality and Wetlands Protection Section

Cc:

Roberta "Birdie" Budnik, Project Manager, Regulatory Division, U.S. Army Corps of Engineers New England District
Matthew Hanington, Tribal Program Coordinator, U.S. Environmental Protection Agency
Honorable Clarissa Sabattis, Chief, Houlton Band of Maliseet Indians
Honorable Sheila McCormack, Chief, Mi'kmaq Nation
Honorable Kirk Francis, Chief, Penobscot Indian Nation
Honorable William Nicholas, Chief, Passamaquoddy Tribe of Indians – Indian Township Reservation
Honorable Pos Bassett, Chief, Passamaquoddy Tribe of Indians – Pleasant Point Reservation
Honorable Cheryl Andrews-Maltais, Chairwoman, Wampanoag Tribe of Gay Head (Aquinnah)
Honorable Brian Weeden, Chairman, Mashpee Wampanoag Tribe
Honorable Anthony Dean Stanton, Chief Sachem, Narragansett Indian Tribe
Honorable James Gessner, Chairman, Mohegan Tribe
Honorable Rodney Butler, Chairman, Mashantucket Pequot Tribal Nation

Attachment: Tribal Environmental Office Points of Contact

Compiled by EPA Region 1

Updated 12/17/2025

Houlton Band of Maliseet Indians	Susan Young, ogs1@maliseets.com Sharri Venno, envplanner@maliseets.com Rhonda Cochran, rcochran@maliseets.com Carolyn Merriam, cmerriam@maliseets.com Sam St. John, samstjohn7@yahoo.com
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Passamaquoddy Tribe of Indians Pleasant Point Reservation	Marvin Cling, marvin@wabanaki.com William (Billy) Longfellow, wlongfellow@wabanaki.com Bruce Doughty, bdoughty@wabanaki.com Chris Soctomah, chrissoctomah@wabanaki.com Ralph Dana, ralphdana@wabanaki.com
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Narragansett Indian Tribe	Dinalyn Spears, DSpears@nitribe.org Steven Smith ssmith@nitribe.org
Mohegan Tribe	Ken Janus kjanus@moheganmail.com Jean Mcinnis, jmcinnis@moheganmail.com
Mashantucket Pequot Tribal Nation	Michael Boland, mboland@mptn-nsn.gov

U.S. Environmental Protection Agency Region 1's Clean Water Act Section 401 Certification of the 2026 Nationwide Permits for Tribal Lands in Massachusetts

December 18, 2025

Clean Water Act (CWA) Section 401 requires applicants for Federal licenses or permits to conduct any activity which may result in any discharge into waters of the United States to obtain a certification or waiver from the certifying authority where the discharge originates or will originate. Where no state or Tribe has authority to give such certification, the U.S. Environmental Protection Agency is the certifying authority. 33 U.S.C. 1341(a)(1). In this case, the Tribal Nations in Massachusetts (the Mashpee Wampanoag Tribe and the Wampanoag Tribe of Hay Head [Aquinnah]) do not have the authority to provide CWA Section 401 certification for projects within their respective Tribal land. EPA's certifications of these Nationwide Permits (NWPs) are provided to the extent that the Commonwealth of Massachusetts has no authority to issue such certification for waters within the exterior boundaries of an Indian reservation.

Project Description

On June 18, 2025, the Corps proposed to reissue 56 NWPs and 1 new NWP that would expire in March 2026. 90 FR 26100 (June 18, 2025). The purpose of the NWPs is to authorize categories of activities under CWA Section 404 and Section 10 of the Rivers and Harbors Act of 1899 that have no more than minimal individual and cumulative adverse environmental impacts. For more details see: https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/

The EPA's Public Notice Process

On June 18, 2025, the EPA received a request for certification from the project proponent. On July 8, 2025, the EPA issued a public notice regarding the proposed project and provided the opportunity for the public to submit comments until August 2, 2025. EPA received no public comments during the public notice period.

General Information

The general information provided in this section does not constitute a certification condition(s).

General Applicability

- The Corps did not request for certification for NWPs 2, 8, 21, 24, 25, 30, 49, and 50, and as such, the certification process did not begin and EPA neither certified nor waived certification. Consequently, if any activity authorized by this NWP may result in a discharge into a water of the United States, on lands that EPA acts as the certifying authority, the Corps must seek CWA 401 certification from EPA.

- If a project proposal does not meet either the general or NWP-specific certification conditions, or if certification is denied for a specific NWP, the project proponent must request an individual certification from EPA Region 1.

Documentation Recommendations

- Project proponents for potential projects authorized under the NWPs should retain this certification in their files with the applicable NWPs as documentation of EPA's certification decisions for the above-referenced proposed NWPs. This certification is specifically associated with the proposed NWPs described above and expires when those NWPs expire, five years from Corps issuance date, or are otherwise superseded by subsequent reissuance if less than five years.
- Copies of this certification should be kept on the job site and made readily available for reference.

Contact Information

- The project proponents for potential projects authorized under an NWP are encouraged to contact EPA Region 1 during the project planning phase if there are any questions about relevant best management practices (e.g., bioengineering techniques, biodegradable erosion control measures, revegetation using native plant species, suitable fill materials, and disposal of debris/construction materials preventing runoff) and resources that can assist with compliance.
- Prior to work commencing, EPA recommends that project proponents notify the appropriate Tribal Environmental Office, if applicable.
- In the case of a spill, EPA recommends that the project proponent notify EPA Region 1 within 8 hours from discovery. For emergency spills, EPA recommends that the project proponent contact the EPA's National Response Center at 1-800-424-8802 as well as the appropriate personnel identified in the project's Spill Prevention Control and Countermeasures, or similar plan, if applicable.
- If you have any questions regarding this certification, please contact r1cwa401@epa.gov.

Certification Decisions

Grants of Certification with Conditions

EPA is granting certification with conditions for activities under NWPs 1, 3, 4, 5, 6, 7, 9, 10 ,11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 51, 52, 53, 54, 55, 57, 58, 59 and A. For NWPs that EPA grants certification with conditions, EPA has determined that the activity will comply with the applicable water quality requirements, including any limitation, standard, or other requirement under sections 301, 302, 303, 306, and 307 of the CWA; any Federal and state or Tribal laws or regulations implementing those sections; and any other water quality-related requirement of state or Tribal law, subject to the conditions listed under the NWPs below, pursuant to CWA Section 401(d).

Condition 1: Plan Development and Implementation for Projects that require Pre-Construction Notification (PCN)

Prior to construction for projects that require a PCN, the project proponent shall develop a plan that includes a copy of the PCN and the following information (if not already included in the PCN):

- Time stamped photo-documentation of the baseline conditions (*i.e.*, 50 feet upstream of the project area, within the project area, and 100 feet downstream of the project area).
- Identifies on a site map, as applicable:
  - Project site with all waters of the U.S. demarcated. Identify all locations where the project will cross jurisdictional waterbodies and identify the ordinary high-water mark and/or wetland boundaries; the planned work area where wetlands/aquatic resources will be removed, disturbed, and/or protected; buffer zones; and areas to be restored/reclaimed, as well as site access points and other approved work areas.
  - Staging areas and stockpiling of materials and equipment, including locations for containment booms and/or absorbent materials, and/or hazardous materials. Stockpiles (*e.g.*, sediment, soil, or other construction materials) shall be stored at least 50 feet from where it may enter waters of the U.S.
  - Construction access points.
  - Disturbance limits.
  - Locations where site dredging and placement of dredged material activities will occur.
  - Locations where dewatering activities will occur including as applicable locations of cofferdams, temporary berms, piling, and/or dikes.
  - Locations of undergrounding or directional drilling (including bore pits).
  - Locations where hazardous materials are stored. Identify where containment booms and/or absorbent materials are located for corrective action if needed. Hazardous materials shall be stored in leak-proof containers with appropriate secondary containment measures (*e.g.*, spill berms, dikes, spill containment pallets, absorbent materials).
  - Any silt/sediment fencing.
  - Photo-reference sites. The project proponent shall indicate the directional view and location where photos were taken on the site map.
- A description of how the site will be restored to pre-construction conditions, as applicable, including measures that will be used to promote and maintain:
  - stream hydrology and stability.
  - aquatic resource composition.
  - diversity of native species existing on site and as introduced via restoration activities.
  - stability of soils.
  - establishment of vegetation at the same percent cover as pre-construction activities.
- The timeframe/schedule for revegetation following completion of construction. Revegetation should occur at the earliest practicable date following completion of construction. Drill seeding is the preferred method, where applicable.
- Non-native and invasive species shall not be used for restoration activities.
- Includes the following, as applicable:
  - Cofferdams, temporary berms, pilings, and/or dikes: Describe installation and maintenance practices for any cofferdams, temporary berms, pilings, and/or dikes.
  - Dredging: Describe how contaminated materials will be managed (*e.g.*, sediment testing data and information to identify whether sediments are clean or contaminated), if included in the project dredged area. Describe methods for minimizing dredging impacts (*i.e.*, sedimentation resuspension) in the water column.
  - Erosion and sediment control: Identify the types and locations of sediment and erosion control features that shall be used onsite, including sediment control fences, haybales, heavy mud

mats, and/or other structures. Biodegradable blankets and/or loose-weave mesh shall be used for erosion control matting. If using velocity dissipation structures (e.g., riprap aprons, check dams etc.), structures shall be constructed to include both peak flow rates and total stormwater volume, and provide protection from the erosive potential of high-velocity flows to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points. The project proponent shall ensure all erosion and sediment control measures are in place prior to the onset of construction.

- Bank stabilization and channel modification. If the project requires bank stabilization or stream channel modification, include pre-construction cross sections. If the project includes steep bank slopes of 3:1 or greater, include revetment cross sections. Bioengineering techniques suitable for steep slope disturbances are preferred (e.g., vegetated toe, bioengineered boulder toe, etc.) Slopes of disturbed banks shall be designed and installed to not reduce the bottom width of the stream.
- Dewatering: Work shall be completed in the dry unless coordinated with EPA Region 1. Describe methods for dewatering, including the equipment that would be used to conduct the dewatering activities. Identify the locations and timing, including length of time the area is to be dewatered. Explain removal method of the temporary structures and/or fill and what measures will be taken to minimize downstream turbidity and adaptive management measures that will be taken and employed to prevent the draining of waters of U.S., including wetlands.
- Ditching and trenching: Explain ditching/trenching and material placement techniques and stabilization methods to be employed, as well as timing. In wetlands, the top 6 to 12 inches of the ditch/trench shall be backfilled with topsoil from the trench, unless other techniques are approved. Include activity timing needs for ditching and stabilization.
- Undergrounding or directional drilling: Describe measures taken to prevent, contain and cleanup any inadvertent return of drilling fluid to the surface (i.e., “frac-outs”).

- Submit the plan to EPA Region 1 at r1cwa401@epa.gov at least 30 days prior to commencing construction activities.

During construction for projects that require a PCN, the project proponent shall:

- Visually inspect construction activities daily.
- Prevent sediment, debris, silt, sand, cement, concrete, oil or petroleum, organic materials, or other construction debris or wastes from entering waters of the U.S. The discharge of unset cement, concrete, grout, or water that has contacted uncured concrete or cement, or related washout to waters of the U.S. is prohibited.
- Maintain documentation onsite that all equipment was cleaned of dirt, mud, and other materials prior to arriving on the project site.
- Inspect all equipment daily and prior to entering any waters of the U.S. for oil, gas, diesel, anti-freeze, hydraulic fluid, and other petroleum leaks. If the project proponent detects a leak from any equipment, they shall immediately remove the equipment from waters of the U.S.; and within 24 hours of detection of a leak, repair the equipment in a staging area or move it offsite.
- Limit vegetation clearing and disturbance to waters. Limit the clearing and grubbing of vegetation and disturbance to areas demarcated on the site map submitted as part of the vegetation restoration and monitoring plan. The boundaries of vegetation to protect shall be flagged in the field prior to beginning construction activities.

- Limit restoration of the channel bed to pre-existing contours and conditions. Any proposed deviations must be specified in advance. For example, if any improvements will be made using natural channel design.
- Photo-document any failures or increased turbidity due to construction activities.
  - within 24 hours of observing a failure or marked increase in turbidity associated with construction, the project proponent shall remedy and implement any additional adaptive management measures to stabilize the activity and prevent further unauthorized discharges into waters of the U.S. The project proponent shall photo-document the failure (*i.e.*, 50 feet upstream of failure, at the incident site, and at least 100 feet downstream of the failure) and the adaptive management measures taken immediately following implementation. The project proponent shall take remediation condition photos at the same location(s) and direction(s) as in the failure condition photos.
  - Within 48 hours of observing any failure, the project proponent shall provide EPA Region 1 with the required photo-documentation, and descriptions of all observed failures and implemented remedies.
  - Within three weeks of observing a failure, the project proponent shall provide EPA Region 1 with a description of the impacts and effectiveness of the employed adaptive management measures.
- Carry out as applicable:
  - Erosion control: Inspect sediment and erosion control measures daily during project implementation and within 12 hours of precipitation events. After construction is complete, remove sediment and erosion control structures once vegetation is established to the same percent cover as pre-construction conditions, unless they are needed for long term stabilization purposes.
  - Dewatering: Assess all dewatering measures within 24 hours after a severe storm event.

Post construction for projects that require a PCN, the project proponent shall, as applicable:

- Submit a post-construction report, as defined below, within 90 days of completing construction activity to EPA Region 1 at r1cwa401@epa.gov or, if the Corps requires a post-construction report for the project activity, the applicant may submit that report to EPA to fulfill this post-construction requirement. The project proponent shall include the following items in the post-construction report:
  - Construction dates.
  - As-built drawings.
  - Documentation of site restoration activities using photographs and any field data sheets showing that the site was restored to pre-existing conditions or better. Include photographs of the site restoration areas on a map.
  - Any water quality data gathered before, during, and post-construction and associated maps showing the sample locations.
  - A description of any adaptive management strategies that were employed during construction, with a focus on strategy effectiveness.
  - Details on the removal of any sediment and erosion control structures, unless they are needed for long term stabilization purposes.
  - Effectiveness of the plan developed and implemented as required under this condition, and recommendations to remedy any deficiencies in plan development and implementation where employed measures were ineffective.

- For activities that require dredging, submit a copy of the as-builts and a post dredged and disposal report within 45 days of each dredging or disposal event to EPA Region 1 at r1cwa401@epa.gov. The project proponent shall include the following items in the post-dredged and disposal report:
  - Dredging and disposal dates.
  - Updated site map displaying the disposal location(s).
  - Dredging and disposal volumes.
  - Water quality monitoring data.
  - Post-dredged bathymetry.
  - Updated site maps displaying any new ditches, spoil piles, widths, and depths.

Why this condition is necessary: This condition is necessary to minimize suspended particulates /turbidity caused by construction activities and is necessary to ensure water quality is not degraded by toxic pollutants in toxic amounts, including construction materials, oil, grease, gasoline, or other types of fluids used to operate and maintain equipment used to complete the project, or discharges from dust abatement activities as well as contaminants in dredged material. This condition also appropriately minimizes impacts from access roads, staging areas, and stockpiling to further ensure that construction activities will result in no more than minimal individual and cumulative adverse environmental effects. This condition will protect water quality because it ensures that the project proponent is using planning and construction practices that will maintain the integrity of the site hydrology and maintain the aquatic resource functions and values, and ensures that appropriate revegetation measures are used to re-establish riparian/wetland vegetation to minimize the adverse impacts of discharges of sediment and pollutants that enter waterways. Limiting the amount of vegetation that is disturbed will minimize the adverse environmental impacts of any potential discharges. Monitoring for at least three growing seasons, or until replanted areas meet monitoring success criteria, will provide an adequate indication that the restoration effort is able to demonstrate restoration is successful.

The general conditions in the Corps' NWP package do not address concerns about resuspension and turbidity caused by construction and dredging activities, thereby justifying the inclusion of this condition. GC 32 only requires agency coordination in certain circumstances. Additionally, GC 11 (equipment), GC 12 (soil erosion and sediment controls), and GC 13 (removal of temporary structures and fills) provide some aquatic resource protections, but greater specificity is needed to determine what measures are suitable to comply with applicable water quality requirements.

Citations: 33 U.S.C. 1341(a)(4); 40 CFR 230.10(c)-(d);40 CFR 230.10(d); 40 CFR 230.21(a); 40 CFR 230.70; 40 CFR 230.71; 40 CFR 230.72; 40 CFR 230.74; 40 CFR 230.75

Condition 2: Special Aquatic Resources

Projects or activities expected to have potential discharges into the below special aquatic resources areas on Tribal lands in Massachusetts are not covered by this certification and applicants must request a project-specific CWA Section 401 certification from EPA Region 1 consistent with 40 CFR 121.5.

- **Wetlands classified as peatlands**: For the purposes of this condition, peatlands are permanently or seasonally waterlogged areas containing organic soils classified as a

Histosol with a specific thickness of an accumulation of peat (i.e., organic matter) and include fens, bogs, and salt marshes.[1]

- **Natural Springs**: Within 100 feet of the water source in natural spring areas. For the purposes of this condition, a spring water source is defined as any location where there is flow emanating from a distinct point at any time during the growing season. Some examples of spring-fed wetlands are hanging gardens. Some examples of spring-fed headwater slopes are peat-accumulating wet meadows and fens (see above). These resources may be identified using U.S. Fish and Wildlife Service's online digital National Wetland Inventory maps, or other aquatic resource mapping tools.
- **Riffle and Pool Complexes**: For the purposes of this condition, riffle and pool complexes are steep gradient sections of streams recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower stream velocity, a steaming flow, a smooth surface, and a finer substrate.
- **State-listed Special Aquatic Resources**: For the purposes of this condition, State-listed Special Aquatic Resources are those aquatic (estuarine and palustrine) habitats identified as priority types of natural communities that are state ranked as Critically Impaired (S1) or Imperiled (S2) by the MassWildlife's Natural Heritage & Endangered Species Program[2].

Why this condition is necessary: This condition is necessary to ensure a case-by-case review of any point source discharges into waters of the United States that are proposed in these specific aquatic resource site types which are inherently difficult to replace and have important ecological functions and values. Discharges into these systems have the potential to alter water circulation patterns and hydroperiods, release nutrients causing shifts in native to non-native species composition, release chemicals that adversely impact biota (plants and animals), increase turbidity levels, reduce light penetration and photosynthesis, or otherwise change the capacity of these systems to support aquatic life uses and other beneficial uses of these special aquatic sites, including impairing their diverse and unique communities of aquatic organisms, including fish, wildlife and the habitats upon which they

[1] It is a general rule that a soil is classified as an organic soil (Histosol) if more than half of the upper 80 cm (32 inches) of the soil is organic or if organic soil material of any thickness rests on rock or on fragmental material having interstices filled with organic materials. Generally, organic soil materials have organic carbon content by weight of 12 percent or more. See the following for more information on what constitutes "organic soil material", limits between Histosols and soils of other orders, problematic hydric soils situations, and other indicators to identify peatlands: Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436. https://www.nrcs.usda.gov/resources/guides-and-instructions/soil-taxonomy; United States Department of Agriculture, Natural Resources Conservation Service. 2025. Hydric soils of problematic conditions and altered materials, Version 1.0.
https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/11824; United States Department of Agriculture, Natural Resources Conservation Service. 2024. Field Indicators of Hydric Soils in the United States, Version 9.0. https://www.nrcs.usda.gov/sites/default/files/2024-09/Field-Indicators-of-Hydric-Soils.pdf

[2] Swain, P. C. 2020. Classification of the Natural Communities of Massachusetts. Massachusetts Division of Fisheries and Wildlife, Westborough, MA.

depend. Project specific information is needed to ensure compliance with water quality requirements.

Citations: 40 C.F.R. 230.1(d); 40 C.F.R. 230.10(a)(3); 40 C.F.R. 230.10(c); 40 C.F.R. 230.10(d); 40 C.F.R. 230.20-24; 40 C.F.R. 230.21-22; 40 CFR 230.41; 40 C.F.R. 230.45; 40 C.F.R. 230.75(c); Subpart E of 40 CFR Part 230, 404(b)(1)

Condition 3: Specific condition for NWP 7

Outfall design and placement shall include an appropriate energy dissipation structure (e.g., rip rap aprons) and shall be sized to prevent high pressure discharge. For intake structures, project proponents shall use an intake screen that reduces the size of aquatic organisms that can be entrained (e.g., a Johnson-type screen/intake), where feasible. Intake velocities shall not exceed 0.5 feet per second.[3]

Why this condition is necessary: This condition is necessary to ensure that outfall structures and intakes are constructed such that they provide localized erosion control at the point(s) of discharge while minimizing habitat degradation and assimilative capacity of the waterbody. Erosion from outfall structures due to improperly designed and placed structures increases sedimentation that alters stream and wetland hydrology (e.g., scouring and deposition) and uncontrolled stormwater contaminants harm aquatic organisms and habitat. Impingement controls for intake structures reduce the size of aquatic organisms that can be entrained and minimize impacts to aquatic species.

Citations: 40 CFR 230.10(c)-(d); 40 CFR 230.30; 40 CFR 230.70; 40 CFR 230.73; 40 CFR 230.74; 40 CFR 230.75

Condition 4: Specific Condition for NWP 13

For projects using gabions, the project proponent shall visually inspect and repair any damage to gabions and the gabion installation area after construction is completed at least once a year after spring flows.

Why this condition is necessary: This condition is necessary to reduce the individual and cumulative adverse environmental effects caused by hard bank stabilization structures on aquatic biodiversity, habitat, and aquatic resource functions and services. This condition is also necessary to minimize the potential for gabion failure and corresponding water quality impacts. Gabion failure leads to erosion and sediment release, which can significantly affect aquatic ecosystem diversity, productivity and stability, and can potentially release wire into the environment that can impact aquatic habitat. Rock released from damaged gabions can impact channel flow, which can interfere with aquatic habitat processes and infrastructure.

Citations: 40 CFR 230.10(c)-(d); 40 CFR 230.72; 40 CFR 230.74

Condition 5: Specific Condition for NWP 16

[3] Additional guidance on water intakes is available from the U.S. Fish and Wildlife Service: https://www.fws.gov/sites/default/files/documents/water-intake-recommendations.pdf

The project proponent shall provide EPA Region 1 with a description of the return water from the upland disposal area prior to discharge, including a description of the nature of the dredged material and a description of any contaminants present in the discharge. The project proponent shall also provide an analysis of how the return water may impact the physiochemical conditions of the receiving water prior to discharge, including a description of how the project proponent will ensure controls are in place to ensure compliance with applicable water quality requirements.

Why this condition is necessary: This condition is necessary to ensure any return water meets applicable water quality requirements and does not degrade receiving waters. Dredged material from industrial and urban areas, stormwater and agricultural runoff, as well as from areas of natural deposits of minerals and other natural substances, often contain contaminants from these sources and may have the potential to alter the chemistry of receiving waters, including but not limited to, nutrients, metals, organic carbon, and invasive species. To ensure that all appropriate and practicable measures to minimize harm to the aquatic ecosystem from contaminants are addressed, the project proponent should consider the unique nature of dredged material and the related contaminant pathway to understand the physicochemical conditions of each disposal site under consideration.

Citation: 40 CFR 230.10(b)-(d); 40 CFR 230.11; 40 CFR 230.12; 40 CFR 230.22; 40 CFR 230.31; 40 CFR 230.32; 40 CFR 230.61

Condition 6: Specific Condition for NWP 40

The project proponent shall ensure that any return water flows back into waters of the U.S. does not contain levels of toxic and priority pollutants in excess of effluent limitation guidelines established under Section 307 of the Clean Water Act.

Rationale: This condition is necessary to ensure that return water to waters of the U.S. meets water quality requirements. Agricultural runoff can degrade receiving waters due to contaminants, including toxic and priority pollutants that are subject to effluent limitations pursuant to Section 307 of the Clean Water Act. Project specific information is needed to consider the contaminants proposed for discharge and the aquatic environment at the proposed discharge site to ensure that all appropriate and practicable measures to minimize harm to the aquatic ecosystem are addressed.

Citations: 33 U.S.C. 1317(a)(1); 40 CFR 401.15; 40 CFR 230.10(c); 40 CFR 230.31; 40 CFR 230.32

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection
Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey	**Kim Driscoll**	**Rebecca Tepper**	**Bonnie Heiple**
Governor	Lieutenant Governor	Secretary	Commissioner

December 17, 2025

Tammy Turley (via email: tammy.r.turley@usace.army.mil)
Chief, Regulatory Division
U.S. Army Corps of Engineers New England District
696 Virginia Road Concord, Massachusetts 01742-2751

Re: **Section 401 WATER QUALITY GENERAL CERTIFICATION**
Department of the Army
Nationwide Permits for Massachusetts
Effective: **Upon issuance of the 2026 NWPs**
Expires: **Upon expiration of the 2026 NWPs**

Dear Ms. Turley,

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed your June 18, 2025 request for the Commonwealth of Massachusetts to issue a Section 401 Water Quality Certification (WQC) of the Department of the Army Nationwide Permits (NWPs), herein termed the "General NWP Certification." In accordance with the provisions of Section 401 of the Federal Clean Water Act, 33 U.S.C. § 1341, the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and the Massachusetts 401 WQC regulations at 314 CMR 9.00, the Department has determined there is reasonable assurance the activities covered by the NWPs **that are certified herein** will be conducted in a manner which will comply with the Massachusetts Surface Water Quality Standards (314 CMR 4.00) and other applicable water quality-related requirements of state law, if carried out in accordance with this General NWP Certification and the provisions of the NWPs, including the Regional Conditions imposed by the USACE New England District.

I. Coverage of the General NWP Certification

This WQC conditionally certifies all activities authorized by USACE in NWPs 1, 3-7, 9-20, 22-23, 27-29, 31-46, 48, 51-55, 57-59, and A so long as the activity is described in 314 CMR 9.03 and is not an activity described in 314 CMR 9.04, and so long as the activity meets all other requirements, terms and conditions of 314 CMR 9.03 and of this WQC. Additionally, emergency activities authorized by one or more of these NWPs are certified if they meet the requirements of 314 CMR 9.12. Applicants must review this General NWP Certification and the current version of 314 CMR 9.03 and 314 CMR

9.04 as of the date of this letter (provided in the Appendix) prior to determining certification status. All other activities that are not described in 314 CMR 9.03 or are described in 314 CMR 9.04, unless they are authorized under 314 CMR 9.12, require an individual WQC application and issuance of an individual WQC from MassDEP.

Project proponents should note that most tidal impacts authorized by NWPs are likely not certified pursuant to this WQC and will require an individual application.

II. Clarifications for Evaluating Applicability of this General NWP Certification

1. **All NWPs** - Extent of MassDEP jurisdiction:

   MassDEP has jurisdiction under CWA § 401 and 40 C.F.R. Part 121 to evaluate water-quality related impacts from the activity subject to the NWPs on all Waters of the Commonwealth. Waters of the Commonwealth are defined at 314 CMR 9.02 to include all rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters and ground waters. Surface Waters are defined at 314 CMR 9.02 to include all Waters of the Commonwealth other than ground waters. Bordering vegetated wetlands are also defined in 314 CMR 9.02. "Land Under Water," as used in 314 CMR 9.00, includes the bottom of, or land under, the surface of the ocean or any estuary, creek, river, stream, pond, or lake. All impacts to Land Under Water including creek, river, and stream impacts are quantified as square feet in Massachusetts. Where thresholds of applicability are determined in 314 CMR 9.03 or 9.04 according to specified Surface Water (including wetland) types, those shall be based on the applicable Surface Waters affected by the activity, not solely the federally jurisdictional subset of those waters.
   In consideration of whether a proposed activity qualifies for coverage under this WQC, "activity" means the proposed project, scheme or plan of action resulting in the discharge of dredged or fill material authorized by the NWP. In determining thresholds for and conducting evaluations of applications, the entirety of the activity, including likely future expansions, shall be considered and not separate phases or segments thereof. The definition of "Single and Complete Project" in 314 CMR 9.02 does not differentiate between linear and non-linear projects; therefore, a linear project considered multiple projects by the USACE will likely be considered one activity by MassDEP. The activity includes temporary and permanent, direct and indirect, and cumulative impacts from the construction and ongoing operation of a project. The calculation of square footage shall include the total of the applicable areas proposed to be lost from the impacts of the activity, without reduction for replication or restoration.

2. **All NWPs** - Salt Marsh and Outstanding Resource Waters: Activities with a discharge of dredged or fill material in a salt marsh (except for Ecological Restoration projects per 314 CMR 9.03(8)), and activities with dredging or a discharge of dredged or fill

material in an Outstanding Resource Water, require an individual WQC application. *See* 914 CMR 9.04(2) and (8).

3. **All NWPs** - Dredging: Dredging as defined in 314 CMR 9.02 includes the removal or repositioning of sediment or other material from below the mean high tide line for coastal waters and below the high water mark for inland waters (not including wetlands). Dredging of 100 cubic yards or greater will trigger an individual WQC application as identified in 314 CMR 9.04(12). Dredging less than 100 cubic yards does not require an individual application, as identified in 314 CMR 9.03(3) provided all of the requirements of this WQC are met, including all of the requirements of 314 CMR 9.03.

4. **NWP 27 -- Aquatic Habitat Restoration, Enhancement and Establishment and NWP A -- Activities to Improve Passage of Fish and Other Aquatic Organisms**: Activities that comply with the provisions of 314 CMR 9.03(8) are certified under this WQC. Note that only Ecological Restoration projects that meet the eligibility criteria pursuant to 310 CMR 10.13, comply with requirements of 310 CMR 10.11 and 10.12, and receive a Restoration Order of Conditions (OOC) pursuant to 310 CMR 10.14 are certified under this WQC. Projects that involve dredging or dredged material disposal as described in 314 CMR 9.04(12) require an individual WQC application. Ecological Restoration Limited projects that receive an OOC under the provisions of 310 CMR 10.24(8) or 10.53(4) are not certified under this WQC and require an individual WQC application.

5. **NWP 40 – Agricultural Activities, and NWP 48 – Commercial Shellfish Mariculture Activities**: Agriculture and aquaculture activities described in 314 CMR 9.03(4) (*i.e.*, normal maintenance or improvement of land in agricultural or aquacultural use) do not require an individual WQC pursuant to 314 CMR 9.04(4) because, in accordance with 314 CMR 9.03(4), the provisions of 314 CMR 9.04 do not apply. However, activities described in 314 CMR 9.04(10) (*i.e.*, agricultural limited projects per 310 CMR 10.53(5), which include but are not limited to projects for the support of existing agricultural production such as the construction or expansion of new ponds or reservoirs) and other agriculture and aquaculture activities that do not meet the respective definitions in 310 CMR 10.04 of normal maintenance or improvement of land in agricultural or aquacultural use must apply for an individual WQC provided the activities result in the discharge of dredged or fill material, or the dredging of 100 cubic yards or more.

6. **Activities Exempt from M.G.L. c. 131, § 40 (WPA):** In accordance with 314 CMR 9.04(4), these activities are not certified by this WQC unless otherwise described in these conditions, and proponents of such activities must apply for an individual WQC pursuant to 314 CMR 9.00. Included in this category of exempt projects is utility maintenance, including any associated construction mats.

III. NWP-Specific Conditions

The activities authorized by this WQC are subject to the following NWP-Specific Conditions:

1. **NWP 5 Scientific Measurement Devices, NWP 6 Survey Activities**: Activities certified by this General NWP Certification shall be temporary in nature and necessary for planning and design purposes such as the installation of monitoring wells, exploratory borings, sediment sampling, and surveying. Pursuant to 314 CMR 9.03(6) and 314 CMR 9.09(1)(d), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters.

2. **NWP 10 Mooring Buoys**: Pursuant to 310 CMR 9.07(2) of the Waterways (Chapter 91) Regulations, mooring activities must be authorized by a valid Annual Permit for Moorings, Floats and Rafts (Section 10A permit) issued by the municipal harbormaster or other municipal official. Pursuant to 310 CMR 9.07(2) and 314 CMR 9.09(1)(d), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters.

3. **Activities Addressing an Emergency Situation, Including But Not Limited To Those Authorized Under NWPs 3, 31, and 37**: Activities addressing emergency situations that meet the requirements of 314 CMR 9.12 are certified under the General NWP Certification. 314 CMR 9.12 supersedes 314 CMR 9.03 and 314 CMR 9.04 such that there are no activity type, location, or impact thresholds that prevent the abatement of an emergency following compliance with 314 CMR 9.12. Pursuant to 310 CMR 10.06, 314 CMR 9.09(1)(d) and 9.12, this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters and maintain water quality.

IV. General Conditions

The activities authorized by this WQC are subject to the following general conditions:

1. Each activity described in 314 CMR 9.03 must comply with the respective requirements in 314 CMR 9.03 for that activity. Pursuant to 310 CMR 10.00, 314 CMR 9.03, 9.06(2), and 9.09(1)(d), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters and maintain water quality.

2. This General NWP Certification shall be valid until such time as the Department of the Army NWPs expire or are modified, suspended, revoked, or reissued. Pursuant to 33 U.S.C. 1341 of the federal Clean Water Act, this condition is necessary to comply with federal law. In the event that MassDEP promulgates a revision to 314

CMR 9.00 that modifies the criteria referenced herein, MassDEP will seek agreement with the USACE pursuant to 40 C.F.R. § 121.10 to modify this General NWP Certification to align with the revised regulation.

3. The Department reserves the right to amend, modify, suspend, revoke, or reissue this WQC if the NWPs are amended, modified, suspended, revoked, or reissued. The activities authorized by this WQC shall be conducted in a manner that assures compliance with the anti-degradation provisions of the Massachusetts Surface Water Quality Standards at 314 CMR 4.00. Pursuant to 314 CMR 9.06(2), 9.09(1)(d) and 314 CMR 4.00, this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters and that activities will not violate surface water quality standards.

4. This WQC does not derogate from any present or future property rights or other rights or powers of the Commonwealth of Massachusetts and does not convey property rights in real estate or material, or any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state, or local laws and regulations pertinent to the property or activity affected hereby. Pursuant to 314 CMR 9.09(1)(d), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters and to comply with state law.

5. MassDEP reserves the right to inspect any project or activity conducted, permitted, or otherwise authorized by this WQC and their impacts on Waters of the Commonwealth, as defined at 314 CMR 4.02, at any time to monitor compliance with the Massachusetts Surface Water Quality Standards, 314 CMR 4.00, the regulations at 314 CMR 9.00, and this WQC. Pursuant to 314 CMR 4.00, 314 CMR 9.09(1)(d), and 9.11, this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters, to maintain water quality, and to comply with state law.

6. The permittee is responsible for compliance with the terms and conditions of this WQC. Failure to comply with the terms and conditions of this WQC is grounds for enforcement by MassDEP including, without limitation, the assessment of civil, administrative, or criminal penalties pursuant to M.G.L. c. 21, §§ 42 and 44, M.G.L c. 21, § 16A, 310 CMR 5.00, M.G.L. c. 131, § 40, 310 CMR 10.08, and 314 CMR 9.11 or other possible actions/penalties as authorized by the General Laws of the Commonwealth. Pursuant to M.G.L. c. 21, §§ 42 and 44, M.G.L c. 21, § 16A, 310 CMR 5.00, M.G.L. c. 131, § 40, 310 CMR 10.08, and 314 CMR 9.09(1)(d) and 9.11, this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters, to maintain water quality, and to comply with state law.

7. Stormwater discharges to Waters of the Commonwealth, including wetlands during the construction period must comply with the requirements of 314 CMR 9.06(6) and must not cause a violation of the Massachusetts Surface Water Quality Standards, 314 CMR 4.00. If applicable, the permittee shall file a Stormwater Pollution Prevention Plan (SWPPP) required by the EPA National Pollution Discharge Elimination System (NPDES) Construction General Permit (CGP)[1] and provide MassDEP a copy of the filed SWPPP. Pursuant to 314 CMR 4.00, 314 CMR 9.06(6) and 9.09(1)(d), this condition is necessary to minimize turbidity and sediment caused by construction activities and to ensure that water quality is not degraded, and that biology of the waters are not negatively impacted by potential discharges.

8. Any activity authorized by this WQC shall not result in any increase in turbidity to Surface Waters including wetlands either during normal or significant rainfall events. Excessive turbidity in wetlands or flowing water within, or in the vicinity of the project site shall be presumed to have unacceptable adverse impacts on Surface Waters including wetlands. Pursuant to 314 CMR 9.06 and 9.09(1)(d), this condition is necessary to minimize turbidity and sediment caused by construction activities and to ensure that water quality is not degraded, and that biology of the waters are not negatively impacted by potential discharges.

9. Refueling, washing, or other maintenance of vehicles and construction equipment, and storage of hazardous materials shall not take place within Surface Waters including wetlands. Pursuant to 314 CMR 9.06 and 9.09(1)(d), this condition is necessary to minimize turbidity and sediment caused by construction activities and to ensure that water quality is not degraded, and that biology of the waters is not negatively impacted by potential discharges.

10. Any fill used in Surface Waters, including wetlands shall comply with all relevant provisions of the WPA, the Wetlands Protection Regulations, 310 CMR 10.00, M.G.L. c. 21E, and the regulations promulgated pursuant thereto at 310 CMR 40.0000. Without limitation, fill shall not contain any trash, refuse, rubbish, or debris, including, but not limited to lumber, plaster, construction materials, wire, lath, paper, cardboard, pipe, tires, ashes, metal, plastic, motor vehicles, or parts of any of the foregoing, hazardous waste, hazardous materials, or oil. Pursuant to M.G.L. c. 21E, M.G.L. c. 131, § 40, 310 CMR 10.00, 314 CMR 9.06(2) and 9.09(1)(d), and 310 CMR 40.0000, this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters, to maintain water quality, and to ensure compliance with state law.

[1] - The CGP is applicable to construction activities that disturb one acre or more, or if they disturb less than one acre but the land is a part of a larger common plan of development that disturbs one or more acres of land total.

11. The activities authorized herein shall not commence until the permittee has obtained final approval pursuant to Section 404 of the Federal Clean Water Act from the Army Corps of Engineers, as applicable. Pursuant to 33 U.S.C. 1341, 314 CMR 9.06(2) and 9.09(1)(d) and (e), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters, to maintain water quality, and to ensure compliance with state and federal law.

12. Upon final stabilization of disturbed surfaces, all temporary erosion controls shall be removed and disposed of in a legal manner and shall not be disposed of in Surface Waters including wetlands. Pursuant to 314 CMR 9.06 and 9.09(1)(d), this condition is necessary to minimize turbidity and sediment caused by construction activities and to ensure that water quality is not degraded, and that biology of the waters are not negatively impacted by potential discharges.

13. This WQC does not relax, vary, or waive requirements under the Surface Water Discharge/NPDES Municipal Separate Storm Sewer System (MS4) General Permit and the EPA-issued NPDES Construction General Permit. In the event of a conflict between requirements of this WQC and the referenced general permits, the permittee shall follow the more stringent requirement. Pursuant to 33 U.S.C. 1342, M.G.L. c. 21, §§ 26-53, 314 CMR 9.06(2) and 9.09(1)(d), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters, to maintain water quality, and to ensure compliance with state and federal law.

14. This WQC does not relieve the permittee of the obligation to comply with all other applicable state and federal law. Any changes made to the permittee's project or activity must be reevaluated for eligibility under this WQC. Pursuant to 310 CMR 9.06(2) and 9.09(1)(d), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters, to maintain water quality, and to ensure compliance with state and federal law.

15. The permittee shall comply with General Conditions 1-32 of the NWPs and the Regional Conditions (which include any State-specific Conditions). Pursuant to 310 CMR 9.06(2), this condition is necessary to ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters, to maintain water quality, and to ensure compliance with federal law.

Notification of Appeal Rights

The following persons shall have a right to request an adjudicatory hearing concerning this certification:

1. Any person aggrieved by the decision who has submitted written comments during the public comment period;

2. Any ten (10) persons of the Commonwealth pursuant to M.G.L. c. 30A where a group member has submitted written comments during the public comment period; and

3. Any governmental body or private organization with a mandate to protect the environment, which has submitted written comments during the public comment period.

Any person aggrieved, any ten persons of the Commonwealth, or a governmental body or private organization with a mandate to protect the environment may appeal without having submitted written comments during the public comment period only when the claim is based on new substantive issues arising from material changes to the scope or impact of the activities proposed for coverage and not apparent at the time of public notice. To request an adjudicatory hearing pursuant to M.G.L. c. 30A, § 10, and 310 CMR 1.01, a Notice of Claim must be made in writing, provided that the request is made by certified mail or hand delivery to the Department, with the appropriate filing fee specified within 310 CMR 4.06, along with a Department Fee Transmittal Form, within 21 days from the date of issuance of this WQC and addressed to:

Case Administrator
Department of Environmental Protection
100 Cambridge Street, Suite 900
Boston, MA 02114.

A copy of the request shall at the same time be sent by certified mail or hand delivery to the issuing office of the Wetlands and Waterways Program at:

Department of Environmental Protection
100 Cambridge Street, Suite 900
Boston, MA 02114.

A Notice of Claim for Adjudicatory Hearing shall comply with the Department's Rules for Adjudicatory Proceedings, 310 CMR 1.01(6), and shall contain the following information pursuant to 314 CMR 9.10(3):

a. the 401 Certification Transmittal Number and DEP Wetland Protection Act File Number;
b. the complete name of the applicant and address of the project;
c. the complete name, address, and fax and telephone numbers of the party filing the request and, if represented by counselor other representative, the name, fax and telephone numbers, and address of the attorney;
d. if claiming to be a party aggrieved, the specific facts that demonstrate that the party satisfies the definition of “aggrieved person” found at 314 CMR 9.02;

e. a clear and concise statement that an adjudicatory hearing is being requested; and
f. a clear and concise statement of (1) the facts which are grounds for the proceedings, (2) the objections to the Certification, including specifically the manner in which it is alleged to be inconsistent with the Department's Water Quality Certification Regulations, 314 CMR 9.00, and (3) the relief sought through the adjudicatory hearing, including specifically the changes desired in the final written Certification.

The hearing request along with a DEP Fee Transmittal Form and a valid check or money order payable to the Commonwealth of Massachusetts in the amount of one hundred dollars ($100) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
Commonwealth Master Lockbox
P.O. Box 4062
Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing filing fee pursuant to 310 CMR 4.06(2) for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file an affidavit setting forth the facts believed to support the claim of undue financial hardship together with the hearing request as provided above.

If you have questions on this decision, please contact Lisa Rhodes at Lisa.Rhodes@mass.gov.

Sincerely,



Tim Jones, Director
Division of Wetlands and Waterways

Appendix – 314 CMR 9.03 and 9.04

Cc Sean Duffy, MA Office of Coastal Zone Management (sean.duffey@mass.gov)
CC EPA, Nate Marganson (margason.nathan@epa.gov)

Appendix

Sections 9.03 and 9.04

Excerpted from 314 CMR 9.00: *401 Water Quality Certification for Discharge of Dredged or Fill Material, Dredging, and Dredged Material Disposal in Waters of the United States Within the Commonwealth*

9.03: Activities Not Requiring an Application

The Department certifies the activities identified in 314 CMR 9.03(1) through (8) and therefore they do not require an individual 401 Water Quality Certification application provided the specified conditions are met. For activities meeting these specified conditions, the Final Order of Conditions or final Restoration Order of Conditions issued pursuant to 310 CMR 10.00: Wetlands Protection, as applicable, serves as the Water Quality Certification for the project.

(1) Less than 5000 Sq. Ft. with an Order of Conditions. Activities conducted in compliance with the Wetlands Protection Act and receiving a Final Order of Conditions which meets all applicable performance standards under 310 CMR 10.00: Wetlands Protection provided that:

(a) the Final Order of Conditions permits work that results in the loss of up to 5,000 square feet cumulatively of bordering and isolated vegetated wetlands and land under water. Both bordering and isolated vegetated wetlands must be delineated on the plans contained in the Notice of Intent and described on a form prescribed by the Department; and

(b) the Final Order of Conditions includes conditions requiring at least 1:1 replacement of bordering vegetated wetlands under 310 CMR 10.55(4)(b);

(c) if applicable, the activity conforms to the stream crossing provisions of 310 CMR 10.24(10) and 10.53(8); and

(d) the proposed work is not subject to 314 CMR 9.04.

(2) Beach Nourishment. Beach nourishment activities with a Final Order of Conditions issued under M.G.L. c. 131, § 40.

(3) Dredging Less than 100 C.Y. Dredging and dredged material disposal of less than 100 cubic yards, provided that a Final Order of Conditions has been issued and the proposed work is not subject to 314 CMR 9.04 and the work is not subject to an individual 404 permit by the Corps of Engineers. Dredged sediment generated from such activities shall be managed in accordance with the provisions of 314 CMR 9.07(9) through (11) and may be

used for beach nourishment activities or reuse within the shoreline under a Final Order of Conditions issued under M.G.L. c. 131, § 40.

(4) Agriculture or Aquaculture Exempt under M.G.L. c. 131, § 40 (the Wetlands Protection Act). Normal maintenance and improvement of land in agricultural or aquacultural use that is exempt from the Wetlands Protection Act, as defined and performed in accordance with 310 CMR 10.04: Definitions: Agriculture including the alternatives analysis, as applicable, performed by the USDA Natural Resources Conservation Service (formerly Soil Conservation Service) or 310 CMR 10.04: Definitions: Agriculture. The provisions of 314 CMR 9.04 do not apply.

(5) Less than 5000 Sq. Ft. of Isolated Vegetated Wetlands. Any activity in an area not subject to jurisdiction of the Wetlands Protection Act which is subject to 33 U.S.C. 1251 (i.e., isolated vegetated wetlands) which will result in the loss of up to 5000 square feet cumulatively of bordering and isolated vegetated wetlands and land under water, provided there is no discharge of dredged or fill material to any Rare Species Habitat or to any Outstanding Resource Water.

(6) Planning and Design Activities. Activities that are temporary in nature, have negligible impacts, and are necessary for planning and design purposes such as the installation of monitoring wells, exploratory borings, sediment sampling, and surveying. The applicant shall notify the Department and conservation commission at least ten days prior to commencing the activity. Notification is not required if a valid, unexpired Final Negative Determination of Applicability has been issued for the work as described 310 CMR 10.05(3)(b). Notification shall include a description of the activity, the location of the proposed activity and measures to be taken to avoid or minimize impacts. The site shall be substantially restored to its condition prior to the activity.

The Department will notify the persons to whom an Order of Conditions is issued not later than ten business days of its receipt by the Department that based on the information available to the Department the criteria of 314 CMR 9.03 have not been met. If the impacts to resource areas, as defined in the Massachusetts Wetland Protection Act and the Federal Clean Water Act, or the project size increases from the description filed with the Notice of Intent, or there are any inaccuracies therein, the applicant must notify the Department in writing and request a determination that the criteria of 314 CMR 9.03 have been met before the activity begins.

(7) Test Projects. A Test Project authorized by and conducted in accordance with a final Order of Conditions provided that the project: does not require an individual Section 404 permit from the U.S. Army Corps of Engineers; is not located in Outstanding Resource Waters; and does not exceed any of the impact thresholds set forth in 314 CMR 9.03(1), (3), and (5).

The Department will notify the persons to whom an Order of Conditions is issued not later than ten business days of its receipt by the Department if, based on the information available to the Department, the project is not exempt from the requirement to submit an

individual 401 Water Quality Certification application pursuant to 314 CMR 9.03(7). If the applicant discovers that the project or its impacts on Resource Areas and waters of the United States within the Commonwealth differ from the project and impacts presented in the Notice of Intent, the applicant shall notify the Department in writing within 72 hours of such discovery and request a written determination from the Department as to whether the project is exempt from the requirement to submit an individual 401 Water Quality Certification pursuant to 314 CMR 9.03(7). In that event, the applicant shall not commence the project until s/he obtains a written determination from the Department that the project is exempt from the requirement to obtain an individual 401 Water Quality Certification pursuant to 314 CMR 9.03(7) or an individual 401 Water Quality Certification authorizing the project.

(8) Ecological Restoration Project. Discharge of dredged or fill material in association with an Ecological Restoration Project provided that the discharge of dredged or fill material is in compliance with a valid final Restoration Order of Conditions issued pursuant to 310 CMR 10.11: Actions Required Before Submitting a Notice of Intent for an Ecological Restoration Project through 310 CMR 10.14: Restoration Order of Conditions followed by a Certificate of Compliance, unless the project involves dredging or dredged material disposal as described in 314 CMR 9.04(12). Ecological Restoration Projects that include the activities described in 314 CMR 9.04(12) require a 401 Water Quality Certification application pursuant to 314 CMR 9.04.

9.04: Activities Requiring an Application

The activities identified in 314 CMR 9.04(1) through (13) require a 401 Water Quality Certification application and are subject to the Criteria for Evaluation of Applications for the Discharge of Dredged or Fill Material in 314 CMR 9.06 and/or 9.07:

(1) More than 5000 Sq. Ft. Any activity in an area subject to 310 CMR 10.00: Wetlands Protection which is also subject to 33 U.S.C. 1251, et seq. and will result in the loss of more than 5000 square feet cumulatively of bordering and isolated vegetated wetlands and land under water, except for an Ecological Restoration Project not requiring a Water Quality Certification application pursuant to 314 CMR 9.03(8).

(2) Outstanding Resource Waters. Dredging in, or any activity resulting in any discharge of dredged or fill material to any Outstanding Resource Water.

(3) Real Estate Subdivision - Any discharge of dredged or fill material associated with the creation of a real estate subdivision, unless there is a valid, unexpired Final Order of Conditions, followed by a Certificate of Compliance, and a recorded deed restriction providing notice to subsequent purchasers limiting the amount of fill for the single and complete project to less than 5000 square feet cumulatively of bordering and/or isolated vegetated wetlands and land under water and the discharge is not to an Outstanding Resource Water. Real estate subdivisions include divisions where approval is required and where approval is not required under the Subdivision Control Law, M.G.L. c. 41, §§ 81K through 81GG. Discharges of dredged or fill material to create the real estate subdivision

include but are not limited to discharges resulting from the construction of roads, drainage, sidewalks, sewer systems, buildings, septic systems, wells, and accessory structures.

(4) Activities Exempt under M.G.L. c. 131, § 40. Any activity not subject to M.G.L. c. 131, § 40 and which is subject to 33 U.S.C. 1251 and will result in any discharge of dredged or fill material to bordering vegetated wetlands or land under water.

(5) Routine Maintenance. Routine maintenance of existing channels, such as mosquito control projects or road drainage maintenance, that will result in the annual loss of more than 5000 square feet cumulatively of bordering and isolated vegetated wetland and land under water will be evaluated under the criteria of 314 CMR 9.06. A single application may be submitted and a single certification may be issued for repeated routine maintenance activities on an annual or multi-year basis not to exceed five years.

(6) More than 5000 Sq. Ft. of Isolated Vegetated Wetlands. Any activity in an area not subject to jurisdiction of M.G.L. c. 131, § 40 but which is subject to 33 U.S.C. 1251 (i.e., isolated vegetated wetlands) and which will result in the loss of more than 5000 square feet cumulatively of bordering and isolated vegetated wetlands and land under water.

(7) Rare Species Habitat in Isolated Vegetated Wetlands. Any activity resulting in the discharge of dredged or fill material to an isolated vegetated wetland that has been identified as Rare Species Habitat.

(8) Salt Marsh. Any activity resulting in the discharge of dredged or fill material in any salt marsh, except for an Ecological Restoration Project not requiring a Water Quality Certification application pursuant to 314 CMR 9.03(8).

(9) Individual 404 Permit. Any activity subject to an individual Section 404 permit by the Corps of Engineers, except for an Ecological Restoration Project not requiring a Water Quality Certification application pursuant to 314 CMR 9.03(8).

(10) Agricultural Limited Project. Agricultural work, not exempt under M.G.L. c. 131, § 40, referenced in and performed in accordance with 310 CMR 10.53(5). Provided the activity does not result in any discharge of dredged or fill material to an Outstanding Resource Water, such work will be presumed to meet the criteria of 314 CMR 9.06 where a comparable alternatives analysis is performed or approved by the USDA Natural Resources Conservation Service and included in the Notice of Intent.

(11) Discretionary Authority. Any activity where the Department invokes discretionary authority to require an application based on cumulative effects of multiphased activities, cumulative effects of dredging, or from the discharge of dredged or fill material to bordering or isolated vegetated wetlands or land under water, or other impacts which may jeopardize water quality. The Department will issue a written notice of and statement of reasons for its determination to invoke this discretionary authority not later than ten business days after its receipt of an Order of Conditions.

(12) Dredging 100 Cubic Yards or More. Any dredging or dredged material re-use or disposal of 100 cubic yards or greater.

(13) Any activity not listed in 314 CMR 9.03 or 9.04 is an activity requiring an application subject to the requirements of 314 CMR 9.05 and 9.06 through 9.13 as applicable.

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Office of Coastal Zone Management
100 Cambridge Street, Suite 900, Boston, MA 02114
www.Mass.gov/CZM | (617) 626-1200

Maura T. Healey, *Governor* | Kimberley Driscoll, *Lieutenant Governor* | Rebecca L. Tepper, *Secretary* | Alison Brizius, *Director*

December 18, 2025

Ms. Tammy Turley
U.S. Army Corps of Engineers New England District
Regulatory Division
696 Virginia Road
Concord, MA 01742-2751

RE: Nationwide Permits Reissuance for Proposed Implementation in Massachusetts, Maine, Rhode Island, Connecticut, Vermont, and New Hampshire

Dear Ms. Turley,

The Massachusetts Office of Coastal Zone Management (CZM) has reviewed the proposed adoption of the Nationwide Permits (NWPs) for the U.S. Army Corps of Engineers (USACE) Section 10 and Section 404 authorizations and issues this conditional concurrence.

NWPs are issued by USACE to authorize categories of activities under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 that have no more than minimal individual and cumulative adverse environmental effects. The NWPs are proposed to replace the Massachusetts General Permits (MA GPs) currently used to authorize Section 10 and/or Section 404 activities. Under Section 307 of the Coastal Zone Management Act (CZMA), 15 CFR § 930.31, USACE filed for federal consistency certification with CZM on June 18, 2025, initiating a 60-day federal consistency review. To align with the reasonable period of time allotted for the review and issuance of the Section 401 Water Quality Certificate (401 WQC) by the Massachusetts Department of Environmental Protection (MassDEP), CZM requested, and USACE accepted an extension of the CZM federal consistency review period, resulting in a decision due date of December 18, 2025. Throughout the review process, CZM met regularly with USACE and MassDEP to discuss the NWPs and conformance with state regulation and policy.

In conducting its federal consistency review of the NWPs, CZM considered the text of the NWPs, the nature and extent of differences between the NWPs and the current MA GPs, and CZM's experience with review of projects authorized pursuant to the most recent and prior versions of the MA GPs. The current MA GPs took effect in June 2023 and established review thresholds and conditions that project proponents must abide by to comply with USACE authorization, MassDEP 401 WQC regulations, and the Massachusetts Coastal Program Enforceable Policies.

CZM concurred that projects eligible for Self-Verification under the MA GPs are consistent with the Massachusetts Coastal Program Enforceable Policies, but review of projects requiring PCN under the MA GPs is needed to ensure consistency with the Massachusetts Coastal Program Enforceable Policies. Based on review of the text of the NWPs, a comparison of the NWPs to the MA GPs, and our experience in reviewing applications for projects eligible for PCN under the MA GPs, CZM has determined that the terms of certain NWPs will allow some projects to proceed in Massachusetts with lower levels of review than is currently required under the MA GPs. Further, some projects eligible for authorization under the NWPs may be inconsistent with one or more Massachusetts Coastal Program Enforceable Policies. As a result, CZM has determined that the conditions provided in this conditional concurrence are necessary to ensure that projects authorized by USACE under the NWPs are consistent with the Massachusetts Coastal Program Enforceable Policies.

I. CZM Conditional Concurrence with NWPs

CZM concurs with the NWPs on the following conditions:

- **A.** Any Section 10 and/or Section 404 applicant (including any person eligible for non-reporting status) proposing work subject to any listed NWP that exceeds any review threshold set out in section II shall notify CZM pursuant to section III.
- **B.** CZM will review each notification to determine whether individual review is warranted and reserves the right to take individual review of any project exceeding these thresholds where such project is inconsistent with one or more of the Massachusetts Coastal Program Enforceable Policies, such that individual review is warranted.

These conditions apply to any application for work, regardless of whether that work is eligible for non-reporting status under the relevant NWP(s).

II. Review Thresholds

Proponents applying for authorization under the NWPs for projects in the Massachusetts coastal zone that exceed the following thresholds must submit the information provided in section III to CZM in order for CZM to determine if the project warrants federal consistency review**.**

A. Thresholds Applicable to all NWPs

1. **NWP PCN Requirements:** Any project in the coastal zone that triggers the submission of a PCN under the NWPs.
2. **Salt Marsh or Tidal Vegetated Shallows:** Any project wholly or partially located in saltmarsh or tidal vegetated shallows.
3. **Tide Gates:** Any project proposing a new tide gate.

B. Thresholds Applicable to Specific NWPs

1. **NWP 3 (Maintenance)**
   a. The combined permanent and temporary impacts extending beyond the original footprint are ≥5,000 square feet in tidal waters.

b. The combined permanent and temporary impacts extending beyond the original footprint are ≥1,000 square feet in mudflats and/or natural rocky habitat.
c. The removal of sediment outside the immediate vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) that is ≥200 linear feet.

2. NWP 4 (Fish and Wildlife Harvesting, Enhancement, Attraction)

a. Any project that includes artificial reefs or new, or expansions of, impoundments and semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster with an impounded area >½ acre.

3. NWP 5 (Scientific Measurement Devices)

a. Any aspect of the project will be located in mudflats.
b. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
c. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

4. NWP 6 (Survey Activities)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.
c. Exploratory trenching in tidal waters. "Exploratory trenching" means mechanical land or underwater clearing of the upper soil profile to expose bedrock or substrate for the purpose of mapping or sampling the exposed material.

5. NWP 7 (Outfall Structures and Associated Intake Structures)

a. Any project applying for authorization under NWP 7.

6. NWP 8 (Oil and Gas Structures on the Outer Continental Shelf)

a. Any project applying for authorization under NWP 8.

7. NWP 10 (Mooring Buoys)

a. Any aspect of the project will be located in mudflats or natural rocky habitat.

8. NWP 12 (Oil or Natural Gas Pipeline Activities)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

c. The project involves unconfined work or silt-producing activities in streams with diadromous fish.

9. NWP 13 (Bank Stabilization)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.
c. Activities in tidal waters that are ≥200 linear feet.
d. Any project including stream channelization or relocation activities.
e. Any project including breakwaters, groins, or jetties.

10. NWP 14 (Linear Transportation Projects)

a. Any aspect of the project will be located in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

11. NWP 17 (Hydropower Projects)

a. Any project applying for authorization under NWP 17.

12. NWP 18 (Minor Discharges)

a. Any discharge associated with beach nourishment.

13. NWP 19 (Minor Dredging)

a. Any dredging considered to be improvement dredging per the Massachusetts 401 Water Quality Certification Regulations at 310 CMR 9.02.

14. NWP 20 (Response Operations for Oil or Hazardous Substances)

a. Any aspect of the project will be located in mudflats or natural rocky habitat.
b. Temporary impacts are ≥1,000 square feet in tidal waters for spill response training exercises.

15. NWP 23 (Categorical Exclusions)

a. Any project applying for authorization under NWP 23.

16. NWP 27 (Aquatic Ecosystem Restoration, Enhancement, and Establishment Activities)

a. In tidal waters excluding tidal vegetated shallows, the combined permanent and temporary impacts are ≥5,000 square feet.
b. Eelgrass (vegetated shallows) planting and transplanting ≥100 square feet in tidal waters.

c. Runneling projects with the purpose of restoring saltmarsh by removing excess water that ponds on the saltmarsh surface.
d. The project proposes permanent water impoundments, dam removal, or fish ladders.
e. The conversion of: (a) a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa, wetland to pond, etc.) or uplands, (b) one wetland type to another.
f. Any project that includes activities associated with stream channelization, relocation, or artificial reefs.

17. NWP 31 (Maintenance of Existing Flood Control Facilities)

a. Any project applying for authorization under NWP 31.

18. NWP 32 (Completed Enforcement Actions)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

19. NWP 33 (Temporary Construction, Access, and Dewatering)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

20. NWP 34 (Cranberry Production Activities)

a. Any project applying for authorization under NWP 34.

21. NWP 35 Maintenance Dredging of Existing Basins

a. Any project applying for authorization under NWP 35.

22. NWP 36 (Boat Ramps)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

23. NWP 37 (Emergency Watershed Protection and Rehabilitation)

a. Any project applying for authorization under NWP 37, except in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur.

24. NWP 45 Repair of Uplands Damaged by Discrete Events

a. Any project applying for authorization under NWP 45.

25. NWP 48 (Commercial Shellfish Mariculture Activities)

a. Discharges of fill material associated with aquaculture ≥5,000 square feet
b. Research, educational, commercial-viability, or experimental aquaculture gear activities ≥1,000 square feet.
c. Activities in water depths ≥10 feet mean low lower water (MLLW).
d. In tidal waters, expansions of existing lease sites that exceed 2 acres for the entire site (e.g., a 1-acre lease site increasing to a 2-acre lease site does not require notification to CZM).
e. The project includes new, or expansions of, impoundments and semi-impoundments of tidal and non-tidal waters for the culture or holding of motile species such as lobster with an impounded area >½ acre.
f. The project includes the cultivation of a nonindigenous species, unless that species has been previously cultivated in the waterbody.
g. The project includes the cultivation of an aquatic nuisance species.
h. The project includes stockpiles, staging areas, or the deposition of shell material back into tidal and non-tidal waters as waste.

26. NWP 54 (Living Shorelines)

a. The combined permanent and temporary impacts extending beyond the original footprint are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts extending beyond the original footprint ≥1,000 square feet in mudflats and/or natural rocky habitat.
c. The activity is ≥1,000 linear feet along the bank (≥2,000 linear feet along both banks).
d. The activity is ≥30 feet channelward of mean low water in tidal waters
e. The project includes upland reclamation activities.
f. The project includes stream channelization or relocation activities.
g. The project includes breakwaters, groins, jetties, or artificial reefs.

27. NWP 55 (Seaweed Mariculture Activities)

a. Any project applying for authorization under NWP 55.

28. NWP 57 (Electric Utility Line and Telecommunications Activities)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

29. NWP 58 (Utility Line Activities for Water and Other Substances)

a. The combined permanent and temporary impacts are ≥5,000 square feet in tidal waters.
b. The combined permanent and temporary impacts are ≥1,000 square feet in mudflats and/or natural rocky habitat.

30. NWP A. Activities to Improve Passage of Fish and Other Aquatic Organisms

a. Any project applying for authorization under NWP A.

III. Notification for Projects Exceeding a Threshold

A Section 10 and/or Section 404 applicant proposing work that exceeds any threshold set out in this conditional concurrence must notify CZM of their proposed project as provided in this section.

Notification shall be provided via email to the CZM Federal Consistency General Inbox (czm.fedcon@mass.gov). Notification to CZM may be made at any time but shall be made no later than the date when the applicant submits to USACE for Section 10/404 approval. CZM will determine whether the notification is complete within 7 days and will provide a response within 14 days after a determination that the notification is complete, or such other time as CZM may agree with the applicant. The response will indicate that: (i) federal consistency review is not required; (ii) federal consistency review is required; or (iii) that additional consultation is required to determine whether federal consistency review will be required. Where additional consultation is required, CZM will work with the applicant to reach a final resolution within a reasonable time. A CZM determination that federal consistency review is not required (or completion of federal consistency review, as applicable) is required prior to the start of work.

Projects that require notification to CZM shall include at least the following information:

1. A description of the proposed project, including resource area delineations, preferably illustrated with map(s) and site plan(s) depicting both existing and proposed conditions, and an analysis and quantification of the temporary and permanent impacts of the project on the resource areas.
2. A copy of the Section 10/404 application.
3. The Massachusetts Environmental Policy Act (MEPA) number, if applicable.
4. A copy of the Section 401 permit or permit application, if applicable.
5. A copy of the Chapter 91 Waterways license or application, if applicable. Additionally, any previous authorizations for the project or structures on the project site should be provided.
6. A description of the proposed activities associated with the project, the coastal effects, and any information relied upon by the applicant to develop project design and permit applications. Maps, diagrams, and technical data may be submitted when a written description alone will not adequately describe the proposed project.
7. A copy of the latest design plans developed for the project.
8. Any other information that CZM may require to determine if federal consistency review is required.

CZM will determine whether the proposed work requires federal consistency review on the basis of the information provided and any other information that CZM determines is relevant. In the event that CZM initiates federal consistency review for a project, it will notify the proponent by email at the address used for the submission.

If USACE does not agree with these conditions, then pursuant to 15 CFR 930.4, the conditional concurrence automatically becomes an objection. In the event of an objection, USACE may consider using the dispute resolution mechanisms described in 15 CFR 930.44.

Thank you for your cooperation with CZM.

Sincerely,



Alison Brizius

Director

cc: Christine Jacek, USACE
Katelyn Rainville, USACE
Roberta Budnick, USACE
Tyler Soleau, CZM
Sean Duffey, CZM
Lisa Rhodes, MassDEP
Mia McDonald, MassDEP
Tim Jones, MassDEP
Rebekah Lacey, MassDEP
Karen Crocker, MassDEP
Read Porter, EEA
Katie ChicojayMoore, EEA

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DOCUMENT A00840

MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMBINED APPLICATION – ACOE APPLICATION

AND

WATER QUALITY CERTIFICATE APPLICATION

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IMPROVING COMMUNITIES TOGETHER

January 19, 2026

Dan Vasconcelos
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742

Re: Pre-Construction Notification Application
Pleasant Street Bridge Replacement Project (MassDOT Project #613636)
Dighton, Massachusetts

Dear Mr. Vasconcelos:

The Town of Dighton, in conjunction with the Massachusetts Department of Transportation – Highway Division (MassDOT) is submitting this combined Pre-Construction Notification / Water Quality Certificate application for the proposed Bridge Replacement at Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts (the Project). This Project requires authorization under Massachusetts General Permit 23: Linear Transportation Projects, and 24: Temporary Construction, Access, and Dewatering. Additionally, the Project requires a Chapter 401 Water Quality Certification for proposed excavation and fill within Waters of the U.S. (WOTUS).

The Pleasant Street Bridge Replacement Project is necessary to improve safety and transportation infrastructure in eastern Dighton along the Taunton River. The existing bridge was constructed in 1918, and the superstructure and abutments now show evidence of cracking and deterioration. The replacement bridge structure will be constructed within the footprint of the existing bridge, with widening of the western shoulder to provide adequate sight distance from Muddy Cove Lane. Updated safety features including guardrails and a sidewalk, have also been incorporated into the design.

The Project will require demolition of the existing bridge superstructure, construction of the new bridge deck and associated structures, replacement of the bridge abutments within Muddy Cove Brook, as well as full depth roadway reconstruction and grading. A 6-foot concrete sidewalk and concrete pedestrian curb ramp will be installed. Finally, work also includes placement of scour protection around the abutments and wingwalls.

As a result of the proposed work, approximately 545 square feet (sf) of temporary and 941 sf of permanent impact to WOTUS and 54 linear feet (lf) of temporary and 109 lf of permanent impact along the High Tide Line will occur, and 98.2 cubic yards (cy) of material will be dredged from below the High Tide Line. Impacts will be mitigated through dewatering to allow work to occur in dry conditions, the use of sedimentation and erosion controls to prevent impacts downgradient from the proposed work, and restoring the streambed with simulated streambed material that is compatible with the existing streambed.

A pre-filing meeting with U.S. Army Corps of Engineers and MassDEP took place on November 20, 2025.

This Project is being filed under the MassDOT Bridge Exemption as specified in the 2014 Transportation Bond Bill. The bridge replacement design is substantially the functional equivalent of, and in similar alignment to, the existing bridge. The Project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.

BETA GROUP, INC.
89 Shrewsbury Street, Suite 300, Worcester, MA 01604
P: 508.756.1600 | W: www.BETA-Inc.com

The Project proponent hereby requests that the certifying authority review and take action on this Massachusetts General Permit request within the applicable reasonable period of time. If you have any questions regarding this application, please do not hesitate to contact us at 844-800-2382 or tdrew@beta-inc.com or the MassDOT Wetlands Coordinator at 857-262-0757 or Courtney.l.walker@dot.state.ma.us.

Very truly yours,
BETA Group, Inc.

Tyler Drew
Scientist

Laura Krause
Associate

cc: Courtney Walker, MassDOT Wetlands Coordinator
Greg Frazier, MassDOT Project Manager
Heidi Davis, MassDEP
Tyler Lewis, MassDEP
Ryan Hale, MassDEP
Jaime Iannelli, MassDEP
Todd Warzecki, BETA Group, Inc.
Tom Ferry, Town of Dighton
Lisa Caledonia, Dighton Conservation Commission
Kevin Newton, USACE

Job No: 22.10328.00

Enclosures: Pre-Construction Notification Packet & Project Plans

IMPROVING COMMUNITIES TOGETHER

January 19, 2026

Heidi Davis
MassDEP Wetlands Program
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: 401 Water Quality Certification Application
Pleasant Street Bridge Replacement Project (MassDOT Project #613636)
Dighton, Massachusetts

Dear Ms. Davis:

The Town of Dighton, in conjunction with the Massachusetts Department of Transportation – Highway Division (MassDOT) is submitting this combined Pre-Construction Notification / Water Quality Certificate application for the proposed Bridge Replacement at Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts (the Project). This Project requires authorization under Massachusetts General Permit 23: Linear Transportation Projects, and 24: Temporary Construction, Access, and Dewatering. Additionally, the Project requires a Chapter 401 Water Quality Certification for proposed excavation and fill within Waters of the U.S. (WOTUS).

The Pleasant Street Bridge Replacement Project is necessary to improve safety and transportation infrastructure in eastern Dighton along the Taunton River. The existing bridge was constructed in 1918, and the superstructure and abutments now show evidence of cracking and deterioration. The replacement bridge structure will be constructed within the footprint of the existing bridge, with widening of the western shoulder to provide adequate sight distance from Muddy Cove Lane. Updated safety features including guardrails and a sidewalk, have also been incorporated into the design.

The Project will require demolition of the existing bridge superstructure, construction of the new bridge deck and associated structures, replacement of the bridge abutments within Muddy Cove Brook, as well as full depth roadway reconstruction and grading. A 6-foot concrete sidewalk and concrete pedestrian curb ramp will be installed. Finally, work also includes placement of scour protection around the abutments and wingwalls.

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This Project is being filed under the MassDOT Bridge Exemption as specified in the 2014 Transportation Bond Bill. The bridge replacement design is substantially the functional equivalent of, and in similar alignment to, the existing bridge. The Project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.

The Project proponent hereby requests that the certifying authority review and take action on this Massachusetts General Permit request within the applicable reasonable period of time. If you have any questions regarding this application, please do not hesitate to contact us at 844-800-2382 or tdrew@beta-inc.com or the MassDOT Wetlands Coordinator at 857-262-0757 or Courtney.l.walker@dot.state.ma.us.

Very truly yours,
BETA Group, Inc.

Tyler Drew
Scientist

Laura Krause
Associate

cc: Courtney Walker, MassDOT Wetlands Coordinator
Greg Frazier, MassDOT Project Manager
Dan Vasconcelos, USACE
Kevin Newton, USACE
Tyler Lewis, MassDEP
Ryan Hale, MassDEP
Jaime Iannelli, MassDEP
Todd Warzecki, BETA Group, Inc.
Tom Ferry, Town of Dighton
Lisa Caledonia, Dighton Conservation Commission

Job No: 22.10328.00

Enclosures: Water Quality Certification Packet & Project Plans

Dighton, MA

Pleasant Street Bridge Replacement

MassDOT Project Number 613636

January 2026

PRE-CONSTRUCTION NOTIFICATION/ WATER QUALITY CERTIFICATION

BETA
89 Shrewsbury Street
Suite 300
Worcester, MA 01604
508.756.1600
www.BETA-Inc.com

Pleasant Street Bridge Replacement

Dighton, MA

PRE-CONSTRUCTION NOTIFICATION/ WATER QUALITY CERTIFICATION

Prepared by: BETA GROUP, INC.
Prepared for: MassDOT – Highway Department

January 2026

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U.S. Army Corps of Engineers (USACE), New England District (NAE)

PRE-CONSTRUCTION NOTIFICATION (PCN)

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.

Principal Purpose The information provided will be used in evaluating activities under Pre-Construction Notification procedures within New England.

Routine Uses This information may be shared with other federal, state, and local government agencies during the application review process. Submission

Disclosure of requested information is voluntary. However, if information is not provided the PCN application cannot be fully evaluated nor can USACE render a permit decision.

Instructions The applicant must complete ALL required sections of this document before their submission to USACE. The PCN submission to USACE shall include one set of drawings which show the location and character of the proposed activity, statements that address each required field below, and documentation that supports each field (e.g., emails, letters, description/narrative, phone calls, surveys, reports, etc.). Electronic submissions to the following address are strongly preferred: cenae-r-ma@usace.army.mil. The email subject line shall contain the following: General Permit #, PCN, City/Town, and date submitted. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY USACE)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME
First - Ralph Middle - Last - Vitacco
Company - Town of Dighton
E-mail Address - rvitacco@dighton-ma.gov

8. AUTHORIZED AGENT'S NAME AND TITLE (*agent is not required*)
First - Laura Middle - Last - Krause
Company - BETA Group, Inc
E-mail Address - lkrause@beta-inc.com

6. APPLICANT'S ADDRESS:
Address- 979 Somerset Avenue
City - Dighton State - MA Zip - 02715 Country - USA

9. AGENT'S ADDRESS:
Address- 89 Shrewsbury Street, Suite 300
City - Worcester State - MA Zip - 0160 Country - USA

7. APPLICANT'S PHONE NOs. with AREA CODE
a. Residence b. Business c. Fax d. Mobile
508-669-6431

10. AGENT'S PHONE NOs. with AREA CODE
a. Residence b. Business c. Fax d. Mobile
774-258-

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Laura Krause to act on my behalf as my agent in the processing of this general permit PCN application and to furnish, upon request, supplemental information in support of this general permit PCN application.

SIGNATURE OF APPLICANT DATE 1/11/26

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)
Pleasant Street Bridge Replacement

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)
Muddy Cove Brook

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)
Pleasant Street
City: Dighton State: MA Zip: 02715

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)
Latitude: 41.809598 °N Longitude: -71.119684 °W

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

State Tax Parcel ID: N/A Roadway Municipality: Dighton

Section: Bristol County Township: N/A Range: N/A

17. DIRECTIONS TO THE SITE.

Take Route 2 West to I-95 South for 18 miles. Continue on I-93 North for 3 miles, then take exit 4 onto Route 24 South. Take exit 16 to Route 44 through Taunton to Route 138. Turn left on Main Street in Dighton then right on Pleasant Street approximately 0.35 miles south to the bridge.

18. IDENTIFY THE SPECIFIC GENERAL PERMIT(S) YOU PROPOSE TO USE:

GP 23: Linear Transportation Projects and Stream Crossings
GP 24: Temporary Construction, Access, and Dewatering

19. DESCRIPTION OF PROPOSED GENERAL PERMIT ACTIVITY (*see instructions*)

The Project proposes to fully replace the substructure and superstructure of the Pleasant Street Bridge. Other project elements include installation of a sidewalk and crosswalk, installation of a guardrail, and installation of scour protection. All in-water work associated with the replacement of abutments will require dewatering for work in dry conditions.

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

Work within Muddy Cove Brook will be conducted within a dewatered sheet metal cofferdam. Sediment and erosion controls will be installed down gradient of proposed work areas at the limit of work.

21. PURPOSE OF GENERAL PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

The purpose of the Project is to improve safety and transportation infrastructure of the bridge, as the existing bridge structures were found to have cracking and deterioration. Additionally, there is currently no sidewalk on the bridge.

22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by Proposed General Permit Activity (*see instructions*)

Area (square feet)	Length (linear feet)	Volume (cubic yards)	Duration	Purpose
545 sf			Temporary	Waters of the U.S. - Dewatering
941 sf			Permanent	Waters of the U.S. - Scour protection
		98.2 cy	Permanent	Waters of the U.S. - Dredging for abutment installation
	54 lf		Temporary	Along High Tide Line - Scour protection
	109 lf		Permanent	Along High Tide Line - Dewatering

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

23. List any other GP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project on any related activity (*see instructions*)

N/A

24. If the proposed activity will result in the loss of aquatic resources that exceed those identified in the New England District Compensatory Mitigation Thresholds, explain how the compensatory mitigation requirement will be satisfied. (*see instructions*)

No loss of aquatic resources is proposed.

25. Is Any Portion of the General Permit Activity Already Complete? [ ] Yes [X] No If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed GP activity or utilize the designated critical habitat that might be affected by the proposed GP activity. (*see instructions*)

Tricolored Bat (*Perimyotis subflavus*) - Proposed Endangered, Monarch Butterfly (*Danaus plexippus*) - Proposed Threatened, Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*) - Endangered

27. List any historic properties that have the potential to be affected by the proposed GP activity or include a vicinity map indicating the location of the historic property or properties. Attach relevant project information, along with any responses received from project notifications to this submittal. (*see instructions*)

Muddy Cove Bridge (DIG.942)
Muddy Cove (DIG.941)

28. For a proposed GP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

Taunton River

29. If the proposed GP activity also requires permission from the USACE pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the USACE district having jurisdiction over that project? [ ] Yes [X] No

If "yes", please provide the date your request was submitted to the USACE District:

30. Does the activity require a 401 Water Quality Certification (WQC)? If so, specify the type of 401 WQC that is required (general or individual). In cases where an individual 401 WQC is required, provide the date the 401 WQC certification request was submitted to the certifying authority and their contact information.

Yes, Individual. WQC submitted concurrently with this application. Submitted to Heidi Davis at MassDEP.

31. If the terms of the GP(s) you want to use require additional information to be included in the PCN (i.e. sampling and analysis plan), please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

N/A

32. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE
Robert Gibbons	1/13/26	Laura Krause	1/19/2026

The Pre-Construction Notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a

Department of the Army

General Permit (GP) Pre-Construction Notification (PCN)

Blocks 1 through 4. To be completed by the U.S. Army Corps of Engineers.

Block 5. Applicant' Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the PCN, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where they can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant, if an agent is to be employed.

Block 12. Proposed General Permit Activity Name or Title. Please provide a name identifying the proposed GP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the GP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed GP activity is located at a site having a street address (not a box number), enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed GP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed GP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed GP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed GP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific General Permit(s) You Propose to Use. List the number(s) of the General Permit(s) you want to use to authorize the proposed activity (e.g., GP 4).

Block 19. Description of the Proposed General Permit Activity. Describe the proposed GP activity, including the direct and indirect adverse environmental effects of the proposed activity. The description of the proposed activity should be sufficiently detailed for USACE to determine that the adverse environmental effects of the activity will be no more than minimal. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide drawings to show that the proposed GP activity complies with the terms of the applicable GP(s). Drawings should contain sufficient detail to provide an illustrative description of the proposed GP activity, but do not need to be detailed engineering plans. The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.

Block 20: Description of Proposed Mitigation Measures. Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed GP activity. The description of any proposed mitigation measures should be sufficiently detailed for USACE to determine how the measures would avoid and minimize adverse environmental effects. If adverse effects exceed the New England District compensatory mitigation thresholds, you must document how compensatory mitigation would be satisfied in Block 24.

Block 21. Purpose of General Permit Activity. Describe the purpose and need for the proposed GP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed General Permit Activity. For discharges of dredged or fill material into Waters of the U.S., provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed GP activity. For structures or work in Navigable Waters of the U.S. subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed GP activity. The area of impact includes the structures or fills with direct or indirect effects to waters of the U.S. The length of impact includes the length of a stream, including is banks, that are directly affected by the structures or fills. The duration of impact should be identified as temporary (xx days) or permanent. The impact purpose should briefly describe what structure or fill is responsible for the impact.

Block 23. Identify Any Other General Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity. List any other GP(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. For linear projects, list other separate and distant crossings of waters and wetlands authorized by these GPs that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 23.

Block 24. Compensatory Mitigation Statement for Losses Greater Than the New England District Compensatory Mitigation Thresholds. New England District requires compensatory mitigation at a minimum one for one replacement ratio or greater for all aquatic resource losses that require a PCN and exceed the New England District Compensatory Mitigation Thresholds, unless USACE determines in writing that either some other form of mitigation is more environmentally appropriate or the adverse environmental effects of the proposed GP activity are no more than minimal without compensatory mitigation, and provides an activity specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than the New England District Compensatory Mitigation Thresholds or provide an explanation of why USACE should not require wetland compensatory mitigation for the proposed GP activity. If more space is needed, attach an extra sheet of paper marked Block 24.

Block 25. Is Any Portion of the General Permit Activity Already Complete? Describe any work that has already been completed for the GP activity.

Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might be Affected by the General Permit Activity. If you are not a federal agency, and if any listed species or designated critical habitat might be affected or is in the vicinity of the proposed GP activity, or if the proposed GP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed GP activity or utilize the designated critical habitat that might be affected by the proposed GP activity. If you are a Federal agency, and the proposed GP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

Block 27. List Any Historic Properties that Have the Potential to be Affected by the General Permit Activity. If you are not a federal agency, and if any historic properties have the potential to be affected by the proposed GP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed GP activity. Provide all relevant documentation about these historic properties in the PCN submittal. If you are a Federal agency, and the proposed GP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the General Permit Activity Would Occur in such a River. If the proposed GP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a “study river” under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit http://www.rivers.gov/

Block 29. General Permit Activities that also Require Permission from the USACE Under 33 U.S.C. 408. If the proposed GP activity also requires permission from the USACE under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a USACE federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the USACE district having jurisdiction over that project.

Block 30. 401 Water Quality Certification. As described above, specify if the activity requires a 401 WQC from the certifying authority.

Block 31. Other Information Required For General Permit Pre Construction Notifications. The terms of some of the General Permits include additional information requirements for preconstruction notifications:

* Maintenance – information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
* Temporary Construction, Access, and Dewatering – a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions.
* Repair of Uplands Damaged by Discrete Events – documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
* Commercial Shellfish Aquaculture Activities – (1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area; (2) the name(s) of the species that will be cultivated during the period this GP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area (a detailed survey is not required).Dredging – (1) a proposed sampling and analysis plan shall be provided to USACE for approval prior to its execution. Pre-application meetings are encouraged.
* Beach Nourishment – sediment grain size should be determined for the length of the beach where nourishment is proposed. The frequency and locations of sediment sampling shall be sufficient to identify the sediment composition of the beach profile. This data shall be consolidated to generate a sediment gradation curve for each sampled transect. Each sampled transect should also be identified on the project plans (drawings).

If more space is needed, attach an extra sheet of paper marked Box 31.

Block 32. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the GP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the GP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the GP activity (including compliance with special conditions, mitigation, etc.).

DELINEATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by the USACE. The permittee may ask the USACE to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the USACE does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. The 60-day PCN review period will not start until a delineation has been completed.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient drawings should also be included. Please submit one copy of all drawings on 8½ x 11 inch plain white paper (electronic submissions preferred). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed GP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived. Some States, Tribes, or EPA have issued water quality certification for one or more GPs. Please check the New England District website to see if water quality certification has already been issued for the GP(s) you wish to use. For proposed GP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained, or a presumption of concurrence must occur. Some States have issued Coastal Zone Management Act consistency concurrences for one or more GPs. Please check the New England District website to see if Coastal Zone Management Act consistency concurrence has already been issued for the GP(s) you wish to use.

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

Department of Environmental Protection
100 Cambridge Street, Suite 900, Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

WW11 - 401 Minor Fill and Excavation Project Application

Permittee Information

Name: Ralph Vitacco
Phone: (508) 669-6431
Address: 979 SOMERSET AVE
DIGHTON, MA 02715

Permittee Company Information

Name: Town of Dighton
Ralph Vitacco
Phone: (508) 669-6431
Address: 979 SOMERSET AVE
DIGHTON, MA 02715

Application Submitter Information

Name: TYLER JEREMY DREW
Phone: (401) 333-2382
Address: 701 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865

Location Information

Muddy Cove Brook
0 PLEASANT STREET DIGHTON, MA 02715
Latitude: 41.809598
Longitude: -71.119684

Other Primary Location Info

Parcel ID	N/A
Municipality	DIGHTON

Project Information

Project Name	Pleasant Street Bridge Replacement Project

Proposed Activity	The Project proposes to fully replace the substructure and superstructure of the Pleasant Street Bridge. Other Project elements include installation of a sidewalk and crosswalk, installation of a guardrail and installation of scour protection. All in-water work associated with the replacement of abutments will require dewatering for work in dry conditions.
Will the project occur in multiple municipalities?	No

Project Type

Commercial / Industrial	
Utility	
Real Estate Subdivision	
Institutional	
Other	Yes
Please provide additional information for the selection of your project type	Bridge replacement

Proposed Areal Extent Info

Bordering Vegetated Wetland (sqft)	0
Isolated Vegetated Wetland (sqft)	0
Non-tidal Land Under Water (sqft)	0
Salt Marsh (sqft)	0
Land Under the Ocean (sqft)	645
Intertidal Zone (sqft)	841
Total cumulative loss (sqft)	1486

Compliance With 314 CMR 9.00

Does the proposed project meet the definition of a Single and Complete Project at 314 CMR 9.02?	Yes
Does the proposed project include "multi-phased activities"?	Yes
Does the proposed project meet the definition of an Ecological Restoration Project?	No
Have you completed the Public Notice as per 314 CMR 9.05(3)? If yes, please attach a completed 'Proof of Public Notice' document in the document section.	No
Does the required Alternatives Analysis screen all practicable alternatives to the proposed discharge that would have less adverse impact on the aquatic ecosystem?	Yes

Does this proposed project meet the definition of Water-Dependent at 314 CMR 9.02?	Yes
Is the proposed project restricted to access to one dwelling unit?	No
Will the cumulative discharges of dredged or fill material to Waters of the United States within the Commonwealth exceed 1 acre in areal extent?	No
Report the areal extent, as expressed in square feet, of all proposed restoration or replication of Bordering Vegetated Wetlands and/or Isolated Vegetated Wetlands	0
Will any proposed discharges of dredged or fill material or any proposed restoration or replication occur within Rare Species Habitat as defined at 314 CMR 9.02?	No
Will the proposed project include or consist of the construction of a new non-tidal crossing of any Land Under Water?	No
Will the proposed project include or consist of the construction of a new tidal crossing of any Land Under Water?	No
Will the proposed project include or consist of the repair, replacement, and/or expansion of an existing non-tidal crossing of any Land Under Water?	No
Will the proposed project include or consist of the repair, replacement, and/or expansion of an existing tidal crossing of any Land Under Water?	Yes
If yes, will such repair, replacement, and/or expansion of an existing tidal crossing be designed in a manner that does not restrict tidal flow over the full natural tidal range to the maximum extent practicable (see Practicable at 314 CMR 9.02)?	Yes
Does the proposed project include any amount of discharges of dredged or fill material to any Outstanding Resource Water?	No
Will any proposed “discharge of dredged or fill materials” occur within any certified Vernal Pool (as defined at 314 CMR 9.02)?	No

Additional Information

Is your project subject to Massachusetts Environmental Policy Act (MEPA)?	No
Is your project subject to Massachusetts Wetlands Protection Act?	No

Is your project subject to Massachusetts Public Waterfront Act?	No
Is your project subject to Massachusetts Historical Commission?	Yes
Is your project subject to Massachusetts Bureau of Underwater Archeological Resources?	Yes
Is your project subject to U.S. Army Corps of Engineers – Section 404 of Federal Clean Water Act?	Yes
USACE File Number (if available)	NAE-2025-02456

Documents

Documents	Please upload 2 Required Document(s) which are mandatory to submit this Application: 1. Alternatives Analysis 2. Site Plans

Special Fee Provision

Exemption	Yes
Exemption Type	City/Town/County Government
Exclusion (special agreement or policy)	
Substitution (ASP/IRP)	
Double Fee for Enforcement	
Hardship payment extension request	

Attachments

Name	Description	Type	Latest Updated
Appendix G - PCNWQC Planset_Signed_1.16.26.pdf	PCN/WQC Plan Set	Site Plans	01/20/2026
Pleasant St Bridge PCN.WQC_Optimized.pdf	npiled Pleasant St Bridge WQC applicati	Alternatives Analysis	01/20/2026

Application Contacts

Name	Organization Name	Contact Person	Telephone #	Contact Type	Email
TYLER, DREW	n/a	n/a	(401) 333-2382	Application Prepared By	tdrew@beta-inc.com
n/a	BETA Group, Inc.	Tyler Drew	(844) 800-2382	Additional Permittee	tdrew@beta-inc.com

Certification Information

Individual
TYLER DREW
701 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865
United States

Telephone #: (401) 333-2382
E-mail: tdrew@beta-inc.com

I certify that I am familiar with the work proposed and that to the best of my knowledge and belief the information contained in this application is true, complete, and accurate.

APPENDIX A

- **Project Narrative**

1.0 INTRODUCTION

On behalf of the Town of Dighton and the Massachusetts Department of Transportation (MassDOT) – Highway Department, BETA Group, Inc. (BETA) is submitting a combined Pre-Construction Notification (PCN)/ Water Quality Certification (WQC) for the proposed replacement of the existing bridge carrying Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts (the Project). The purpose of the Project is to improve safety and transportation infrastructure in eastern Dighton along the Taunton River, as the existing bridge superstructure and substructure were found to have cracking and deterioration. The Project proposes demolition of the existing bridge, and construction of the new bridge substructure and superstructures within the footprint of the existing bridge.

The Project will consist of several activities including:

- Installation of erosion and sediment controls at the limit of work prior to construction;
- Installation of water controls and dewatering of the work area;
- Demolition and removal of the existing bridge;
- Relocation of existing water and gas utilities;
- Installation of new bridge deck and associated structures;
- Installation of new wingwalls and abutments;
- Full depth roadway reconstruction and grading;
- Installation of a concrete sidewalk;
- Installation of concrete pedestrian curb ramp;
- Installation of scour protection; and
- Restoration of temporarily disturbed work areas with loam and seed.

This Project proposes temporary and permanent alteration to federally jurisdictional Tidal Waters of the United States (WOTUS). These impacts include:

- 54 linear feet (lf) of temporary and 109 lf of permanent impact along the High Tide Line;
- 545 square feet (sf) of temporary and 941 sf of permanent impact to WOTUS; and
- 98.2 cubic yards (cy) of dredging within WOTUS.

These impacts are associated with dewatering necessary for the replacement of the existing abutments to occur under dry conditions, and installation of scour protection. Mitigation for these impacts include placement of erosion and sedimentation controls, dewatering to conduct work in dry conditions, and restoration of the work area following construction.

As a MassDOT bridge exempt project, this work is exempt from the Massachusetts Wetlands Protection Act. Due to the WPA exemption, and the proposed excavation and fill within WOTUS, the Project requires a 401 Water Quality Certification. In addition, a Pre-Construction Notification (PCN) is required for authorization under the Massachusetts General Permit 23: Linear Transportation Projects, and 24: Temporary Construction, Access, and Dewatering. Due to the nature and location of the Project, it will also require the following reviews and permits:

- The Project is subject to the Dighton Wetlands Protection Bylaw, and will require filing a Notice of Intent (NOI) with the Dighton Conservation Commission.
- Section 106 Historic Review, as the Project proposes demolition of a historic resource.
- Project review with NOAA's National Marine Fisheries Service (NMFS) for proposed work within Atlantic Sturgeon (*Acipenser oxyrhynchus oxyrhynchus*) habitat.

- Essential Fish Habitat (EFH) assessment is required due to proposed work within EFH.
- Legislative Action for a land transfer under the Public Lands Protection Act.
- Review under the National Environmental Protection Act as a Individual Categorical Exclusion.
- Coordination with the National Parks Services for work along the Taunton River, a federally-designated Wild and Scenic River.

2.0 EXISTING CONDITIONS

2.1 PROJECT LOCUS & EXISTING CONDITIONS

The Project limits include approximately 250 feet of Pleasant Street centered over the bridge conveying Pleasant Street over Muddy Cove Brook, and approximately 90 feet of Muddy Cove Lane from its intersection with Pleasant Street in Dighton, Massachusetts (the Site).

The existing bridge consists of a combination of reinforced concrete tee beams beneath the original roadway, and concrete encased steel girders beneath the original trolly track on the east side. The substructure consists of reinforced concrete abutments, U-wingwalls to the northwest and southeast, and splayed wingwalls to the northeast and southwest. These are supported on piles of unknown specification and depth. The existing structure has a clear span of approximately 28 feet (square span of 23’ -4 ¾”) , an out-to-out width of 36’-4 1/2”, and a curb-to-curb width of 32’-1/2”. Over the bridge, there is a hot mix asphalt wearing surface and concrete railing on both sides. The trolley line on the east side is no longer present and is anticipated to have been buried or removed. The bridge is currently posted for 7-ton, 15-ton, and 22-ton weight limits.

Pleasant Street is a two-way road that runs in a north/south direction through a rural residential community in eastern Dighton, Massachusetts (Figure 1 – Site Locus). Pleasant Street is classified as a local road under the jurisdiction of the Town of Dighton. Stormwater infrastructure on the Site is classified as “country drainage” with the only stormwater structures located within Muddy Cove Lane, north of the Project area. Utilities on the Site include a 2” gas main and 8” water main located within the paved Pleasant Street roadway and bridge.

Existing land uses surrounding the Site include residential housing to the south, Tricentennial Park to the north. Muddy Cove Brook flows east through the Site and under the Pleasant Street bridge before flowing into the Taunton River. The Taunton River, a designated Wild & Scenic River, flows south along the eastern portion of the Site. Vegetation in the vicinity of the bridge consists of roadside grasses, with sparse trees north of the bridge. Areas of salt marsh are located northwest and southeast of the bridge.

2.2 JURISDICTIONAL WATERS OF THE U.S.

Resource Areas subject to Protection under the Massachusetts Wetlands Protection Act (MGL ch.131, s.40 – the Act) and Sections 401 / 404 of the Clean Water Act (33 U.S.C. §1251 et seq (1972), were delineated by BETA Group, Inc. (BETA) on July 6, 2022 and revised on June 3, 2024 (Resource Area Boundary Delineation Report attached). On April 20, 2025 the Resource Area boundary was reviewed by BETA in the field and confirmed as accurate. WOTUS boundaries were identified and delineated in accordance with the methods developed by the *U.S. Army Corps of Engineers Wetland Delineation Manual; Northeast Region* (2009). Resource Areas identified on the Site include Tidal Waters of the U.S., Land Under Ocean (LUO), Land Subject to Tidal Action (LSTA), the High Tide Line (HTL) of Muddy Cove Brook and the Taunton River, and Salt Marsh.

According to the FEMA Flood Insurance Rate Map (FIRM) Panels 25005C0253H and 25005C0261G, dated July 16, 2015 and July 16, 2014, respectively, Special Flood Hazard Areas associated with coastal storms are present at the Site and include Zone AE (1% annual chance of flooding) and the 500-year floodplain (0.2% annual chance of flooding). The Base Flood Elevation of the onsite Zone AE is 14 feet (NAVD88).

Salt Marsh was observed to the north, south, and west of the Site. The Salt Marsh areas to the west and south of the site are adjacent to the limit of work, and impacts to Salt Marsh will be avoided. The Resource Area Boundary Delineation Report in Appendix C describes BETA's findings.

3.0 PROPOSED CONDITIONS

The Project proposes the replacement of the existing bridge conveying Pleasant Street over Muddy Cove Brook. This will involve the demolition of the existing bridge, replacement of both abutments, construction of a new, widened bridge deck and installation of a concrete sidewalk.

Specifically work includes:

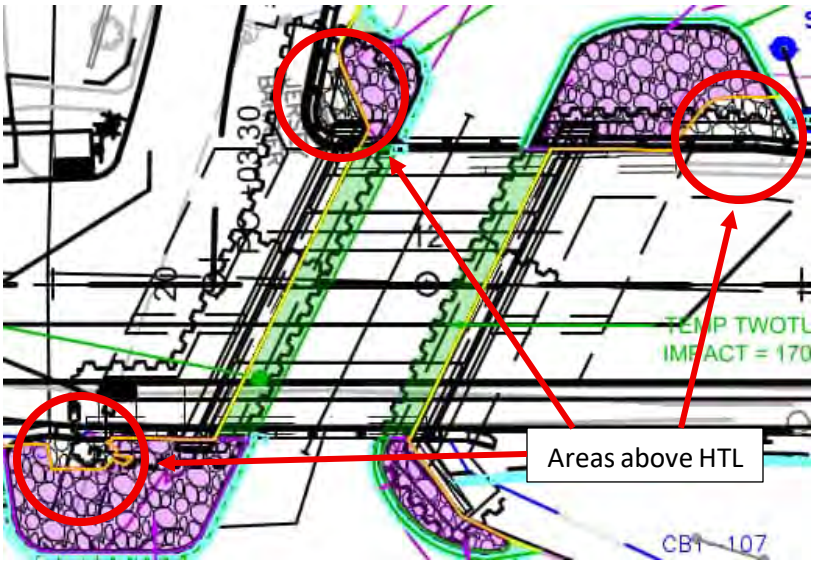
- Installation of erosion and sediment controls at the limit of work prior to construction;
- Installation of water controls and dewatering of the work area around the north and south abutments;
- Demolition and removal of the existing bridge;
- Relocation of existing water and gas utilities;
- Installation of new wingwalls and abutments;
- Installation of new bridge deck and associated structures, including a skewed span of 26 feet and an out-to-out width of 40 feet;
- Full depth roadway reconstruction and grading, including two 11-foot travel lanes with a 2-foot shoulder on the east side;
- Roadway striping with a high visibility crosswalk;
- Installation of a 6-foot concrete sidewalk with granite curbing on the east side;
- Installation of concrete pedestrian curb ramp;
- Installation of new guardrails;
- Installation of rock fill for slope stabilization; and
- Restoration of temporarily disturbed work areas with loam and seed.

As noted above, Site preparation for the Project will include installation of traffic controls, erosion control and water control installation, and establishment of an equipment staging area on the existing paved surface of Pleasant Street and Muddy Cove Lane. Dewatering will be completed by installing turbidity curtains around all proposed in-water work area, followed by installation of metal sheeting to serve as a cofferdam around both abutments. Water within the cofferdam areas will be pumped to a suitable upland area determined by the Contractor. While the area around the abutments will be dewatered, Muddy Cove Brook will continue to ebb and flow through the thalweg during construction.

Work will be completed from the paved surface of Pleasant Street, however the exact equipment to be used during the replacement work will be determined by the contractor. Stockpiling and equipment storage will also occur on the adjacent paved surfaces of Pleasant Street.

In-water work will consist of reestablishing the existing modified rock fill at all four bridge quadrants, as well as installation of cofferdams along the abutments so the bridge abutments can be removed and replaced in the dry. Restoration of disturbed streambed will consist of placement of riprap stone to

replace the stone removed during construction along the abutments. This riprap stone will provide stabilization and scour protection both above and below the HTL. Coastal Bank at the Site above the proposed riprap stone consists of field stone walls that will remain in place and be maintained throughout the Project. Areas to be stabilized with modified rockfill above the HTL are small, where it would be difficult to establish seed as shown in the image below. For this reason, use of compost and seed in this location was determined to be impractical given the Site context. Areas that will be dewatered within the cofferdams will be restored using compatible sediment as described in Item 151.9 of the attached Special Provisions.



Additional details on anticipated dewatering and water controls are provided in Section 8 below. An anticipated Construction Sequence is also provided in Section 5.

4.0 Work within Waters of the U.S.

Portions of the Project will occur within Tidal Waters of the U.S. including areas of Land Under Muddy Cove Brook and along the High Tide Line, as summarized in Table 1.

Table 1. Summary of Impacts

Waters of the U.S.	Impacts	Work Description
Tidal Waters of the U.S.	545 square feet (sf) – Temporary	Placement of erosion controls, water controls and dewatering, bridge abutment replacement
	941 sf – Permanent	Placement of modified rock fill, bridge abutment replacement
Dredging	98.2 cubic yards (cy) - Temporary	Installation of scour protection, bridge abutment replacement

High Tide Line	109 linear feet (lf) – Permanent	Installation of scour protection, placement of erosion controls and water controls
	54 lf – Temporary	Placement of dewatering controls and dewatering

4.1.1 High Tide Line

Permanent impacts along the HTL, totaling approximately 109 lf, are associated with reestablishment of modified rock fill along the abutments and 54 lf of temporary impacts along the HTL are associated with installation of water controls and dewatering.

4.1.2 Tidal Waters of the U.S.

Temporary and permanent impacts to WOTUS are required to replace the existing bridge abutments that are located within Muddy Cove Brook. Approximately 545 sf of temporary alteration is proposed associated with installation of erosion and dewatering controls to establish work areas and allow work to be completed in dry conditions. Approximately 941 sf of permanent impacts to WOTUS are required to reestablish modified rock fill along the abutments within Taunton River and Muddy Cove Brook. Additionally, 98.2 cy of dredging is proposed to excavate to the necessary depth to install the abutment footings. The Project is not expected to exceed 100 cy of dredging.

4.1.3 FEMA Flood Zone

The Site is located within a Coastal FEMA Flood Zone AE, however there is no Regulated Floodway associated with Muddy Cove Brook. All proposed work will occur within Zone AE, including temporary and permanent impacts associated with bridge deck replacement, bridge abutment replacement, placement of riprap scour protection and roadway reconstruction.

According to the FEMA Flood Insurance Rate Map (FIRM) Panels 25005C0253H and 25005C0261G, dated July 16, 2015 and July 16, 2014, respectively, Special Flood Hazard Areas associated with coastal storms are present at the Site and include Zone AE (1% annual chance of flooding) and the 500-year floodplain (0.2% annual chance of flooding). The Base Flood Elevation of the onsite Zone AE is 14 feet (NAVD88), which is located several feet above the existing roadway.

4.2 Stream Crossing Standards

The Project proposes the replacement of an existing stream crossing; however, since Muddy Cove Brook is a tidal river, the Project is not subject to Massachusetts Stream Crossing Standards.

5.0 Construction Sequence

During construction, Pleasant Street will be closed to all vehicular and pedestrian traffic for the duration. Traffic will be detoured from Pleasant Street to Hart Street to County Street (Route 106) to Main Street back to Pine Street, for a detour length of approximately 1.75 miles.

The definitive sequencing of work activities will be determined by the selected contractor; however, the anticipated sequencing is as follows:

1. Implement traffic controls;
2. Installation of erosion and dewatering controls as shown on Project plans;
3. Install metal sheeting cofferdam around abutments for in-water work;
4. Demolish and remove the existing bridge substructure and superstructure;
5. Replace abutments within Muddy Cove Brook;
6. Construct the replacement bridge deck;
7. Install the proposed guardrails and sidewalk;
8. Full depth reconstruction of Pleasant Street;
9. Install scour protection and stream restoration;
10. Grade and pave the bridge approach roadway to meet new bridge dimensions, and;
11. Once Site is stabilized, remove erosion control measures and stabilize all work areas.

6.0 Impact Avoidance, Minimization, and Mitigation

The Project has been designed to avoid and minimize impacts to Waters of the US and other environmentally sensitive areas. Due to the nature of the Project being a bridge replacement, avoidance of impacts is impossible; however, they have been minimized to the extent feasible. Proposed mitigation will include the use of sediment and erosion controls and dewatering of the work area to conduct work in dry conditions. The areas around the Site are primarily vegetated with grasses, however removal of one (1) tree along the northeastern abutment is proposed. The Project was designed to avoid impacts to the salt marsh to the northwest and southeast by constructing steep slopes and maintaining the existing roadway cross section north of the Bridge.

Restoration of Tidal Waters of the U.S. will be provided through the removal of cofferdams to allow water to flow back into the work area. Existing modified rock fill that is moved during construction will be replaced, and supplemented with additional rock fill to provide additional slope protection.

In addition, invasive species will be managed within the limits of work and Best Management Practices will be implemented to prevent establishment of new invasive species during construction.

7.0 Sediment Control

The Project Plans provide details and descriptions of erosion and sediment control measures. Erosion and sedimentation controls will be installed and maintained by the contractor where activities are proposed within 100-feet of Muddy Cove Brook and any associated wetland resource areas. The erosion controls will provide a limit of work barrier while preventing silt and sediments from migrating into or towards the resource areas. Erosion controls will consist of compost-filled filter tubes, coir logs, straw wattles, silt fence, or an approved equivalent. Disturbed soils will be stabilized with a grass seed mix following construction.

The erosion and sedimentation control measures will be installed in accordance with the Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas, March 1997.

8.0 Water Control and Dewatering

In order to complete the replacement of the existing bridge abutments, dewatering will be required to conduct work in dry conditions. While the exact means and methods for water control will be determined by the contractor, it is anticipated that water controls will consist of sheet metal cofferdams. Following

construction, these cofferdams will be cut down to two (2) feet below the mud line. Water will be pumped from inside water control system to a treatment system in an upland area. Again, the exact means and methods of treating the dewatering effluent will be selected by the contractor; however, methods could include pumping the effluent to a filter bag placed on stone surrounded by sediment controls, to a frac-tank, or to another treatment system. Filtered/treated dewatering effluent will be visually monitored during dewatering to avoid sediment discharges.

Proposed water controls will be installed along either Bank of Muddy Cove Brook, maintaining a flow channel between the water control systems throughout construction.

9.0 STORMWATER MANAGEMENT

The MassDOT Stormwater Checklist and Stormwater Report have been completed and is included (Appendix B). As described in the Stormwater Report, and according to the Stormwater Management Standards (310 CMR 10.05(6)(k-q)), the Project constitutes a Redevelopment Project because the work will substantially occur within an existing paved roadway, will result in the construction of roadways shoulders, correction of substandard intersections, and widening of less than one (1) lane. Redevelopment Projects are required to meet Standards 1 and 7 through 10 fully; and Standards 2 through 6 only to the maximum extent practicable. The proposed work will result in a minor net increase in impervious area; therefore, the increase in peak rate of runoff will be negligible.

9.1.1 EXISTING STORMWATER MANAGEMENT

Stormwater runoff on Pleasant Street is classified as “country drainage” and does not utilize catch basins or other BMP’s. One catch basin is located on Muddy Cove Lane, west of the limit of work, which discharges into Muddy Cove Brook adjacent to the roadway, however, this catch basin is not within the limit of work.

9.1.2 PROPOSED STORMWATER MANAGEMENT

The Project does not propose the installation of stormwater infrastructure. Implementation of Stormwater Control Measures (SCM) was considered; however, improvements are not feasible due to right-of-way constraints.

9.1.3 COMPLIANCE WITH STORMWATER STANDARDS

As a Redevelopment Project, the Project is proposed to meet Standards 1, 8, 9 and 10 fully and Standards 2, 3 and 4 to the maximum extent practicable. Standards 5 and 6 do not apply. The Projects compliance with the Stormwater Standards is described below.

LID Measures

LID techniques utilized along portions of the project consist of minimizing disturbance to existing trees and shrubs.

Standard 1: No Untreated Discharges – Met

No new discharges to Wetland Resource Areas are proposed as part of the project and existing drainage patterns will be maintained.

Standard 2: Peak Rate Attenuation – Maximum Extent Practicable

The Project proposes a minor increase in impervious surface (approx. 1,050 sf). Right-of-way limitations include a narrow right-of-way layout, steep topography, nearby wetland Resource Areas and high groundwater. These conditions restrict opportunities to attenuate stormwater runoff; however, no adverse effects to the surrounding area are anticipated. Additionally, the entire Site is located within Land Subject to Coastal Storm Flowage as defined in 310 CMR 10.04.

Standard 3: Recharge – Maximum Extent Practicable

As stated in Standard 2, only minor increases are proposed to impervious area and Site constraints limit the opportunity for stormwater improvements. The Site consists of Hydrologic Soils Group (HSG) A and B which are classified as well drained; however, the presence of high groundwater prevents infiltration. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, but no such location exists at the Site. Stormwater runoff will be directed to vegetated roadside areas to provide opportunities for infiltration.

Standard 4: Water Quality – Maximum Extent Practicable

As stated in Standard 2, only minor increases are proposed to impervious area and Site constraints limit the opportunity for stormwater improvements. The Site consists of Hydrologic Soils Group (HSG) A and B which are classified as well drained; however, the presence of high groundwater prevents infiltration. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, but no such location exists at the Site. Stormwater runoff will be directed to vegetated roadside areas to provide opportunities for infiltration.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs) – Not Applicable

The Project does not propose Land Uses with Higher Potential Pollutant Loads.

Standard 6: Critical Areas – Not Applicable

The Project will not include discharges to any critical areas.

Standard 7: Redevelopment – Met

As a Redevelopment Project, Standards 1, 8, 9 and 10 will be met fully and Standards 2, 3 and 4 to the maximum extent practicable. Standards 5 and 6 do not apply.

Standard 8: Construction Period Pollution Prevention and Erosion and Sediment Control – Met

The project will not disturb greater than one acre; therefore, filing a Notice of Intent with EPA and developing a Stormwater Pollution Prevention Plan (SWPPP) is not required. The Project proposes the use of erosion and sedimentation controls as described in Section 4.1 and shown on the Project Plans, which will be maintained in good working order until permanent stabilization at the Site is achieved.

Standard 9: Long Term Operation and Maintenance Plan – Met

There is no drainage infrastructure within the project limits, stormwater sheet flows to Muddy Cove and the Taunton River. These drainage patterns will be maintained in accordance with standard operations of the Department of Public Works.

Standard 10: Prohibition of Illicit Discharges – Met

There are currently no known illicit discharges within the project limits and new illicit discharges are prohibited.

9.1.4 Evaluation of Alternatives

Various SCM and LID techniques were evaluated during the design of this Project. As described below, several Site constraints prevent the use of SCM's; however, the Project does not propose a significant increase in impervious surface that would increase stormwater runoff from the Site and the proposed LID techniques were presumed to be sufficient.

The use of the following SCM and stormwater Best Management Practices (BMP) were evaluated:

Vegetated Swales

Due to the lack of existing stormwater infrastructure and available space at the Site, the use of vegetated swales is the most feasible treatment method for stormwater runoff. The use of vegetated swales is limited by the constrained Pleasant Street right-of-way and adjacent Resource Areas. Soils at the Site are listed as well drained; however, high groundwater levels prevent infiltration. Additionally, the Massachusetts Stormwater Standards require that infiltration practices be located a minimum of 50 feet from surface, which is not possible at the Site.

Infiltration/ detention basins

Infiltration and detention basins are fairly large and require installation of additional infrastructure such as inlets and overflow structures. As noted above, the potential infiltration is limited by the presence of high groundwater, and the lack of suitable locations located more than 50 feet from surface waters. Additionally, there are no feasible alternate locations to construct these BMP's in the vicinity of the Site without obtaining easements from private property owners or Article 97 land. This is outside of the scope of the Project and provides limited benefit; therefore, it was determined to be infeasible.

Deep-Sump catch Basins

Due to the Site's low elevation, deep-sump catch basins would be partially submerged at high tide rendering them ineffective. Additionally, the lack of existing stormwater infrastructure requires installation of all associated structures including pipes and outfalls. This installation would require additional excavation within the roadway and LSCSF, and additional impacts to Coastal Bank to install new outfalls. This option requires additional impacts to Resource Areas, with very limited benefit to stormwater quality; therefore, it was not incorporated into the design.

10.0 Fisheries and Wildlife / NHESP / Vernal Pools

The Site is not located within any Natural Heritage and Endangered Species Program (NHESP)-mapped Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife. There are no coldwater fisheries present at the Site, and the Site is not located within an Area of Critical Environmental Concern (ACEC). BioMap2 data identifies the Site as within Core Habitat (Aquatic Core Habitat) and Critical Natural Landscape (Upland Buffer of Aquatic Core Habitat). Land Containing Shellfish (LCS) is present at the Site associated with suitable habitat for the soft-shell clam (*Mya arenaria*) and American oyster (*Crassostrea virginica*) (Figure 3 – Wildlife Habitat).

The portion of the Taunton River along the Site has been designated as a Wild and Scenic River by the National Parks Service (NPS). Muddy Cove Brook is not mapped as a Wild and Scenic River.

The National Oceanic and Atmospheric Administration (NOAA) has mapped the Taunton River within the Site as suitable habitat for the Atlantic sturgeon (*Acipenser oxyrhynchus oxyrhynchus*), which is an endangered species protected under the federal Endangered Species Act. In addition, a review of the U.S.

Fish and Wildlife Service (USFWS)'s IPaC data viewer indicates that the Site is within the range of the Tricolored Bat (*Perimyotis subflavus*) and Monarch butterfly (*Danaus plexippus*), which are listed as proposed endangered and proposed threatened, respectively. No critical habitat for the Tricolored Bat or the Monarch butterfly is present at the Site.

The Project is located within Essential Fish Habitat (EFH) of Atlantic salmon and 13 other species, as well as a Habitat Area of Particular Concern (HAPC) for the Summer Flounder (*Paralichthys dentatus)*. The EFH Mapper Report is attached. During the permitting phase of the Project, specific Time of Year (TOY) restrictions may be required to protect the habitat of these species during construction. TOY restrictions are anticipated from NOAA and DMF consultations; however, these restrictions have not yet been determined.

11.0 Alternatives Analysis

Given the location of the existing infrastructure and WOTUS along Pleasant Street, as well as existing layout constraints, possible alternatives are limited. The following alternatives were considered during the design.

11.1 No Build Alternative

This alternative involves not addressing the deterioration of the existing structure. While this alternative would eliminate the need to impact Resource Areas, existing conditions do not meet current safety standards and have a limited lifespan. This does not meet the Project goals and therefore was not selected as the preferred alternative.

11.2 Footprint Bridge – Preferred Alternative

This alternative involves replacement of the Pleasant Street bridge, without widening the existing abutments or tidal crossing. Due to right-of-way constraints, this alternative would allow for a concrete sidewalk to be constructed on only one side of the road. Widening of the bridge deck allows for additional space for paved shoulders and improved sight lines for traffic turning from Muddy Cove Road, without increasing impacts to Muddy Cove Brook through construction of widened abutments. Replacement abutments would be constructed in the location of the existing structures; therefore, the tidal crossing width would remain unchanged. This alternative meets the Project goals of improving traffic safety and replacing aging infrastructure, with minimal impacts to adjacent Resource Areas. Therefore, this was selected as the preferred alternative.

11.3 Roadway Widening

This alternative involves full replacement of the Pleasant Street bridge, with a widened roadway layout that can accommodate concrete sidewalks and paved road shoulders on both sides of Pleasant Street. Constructing sidewalks along both sides of the roadway would greatly improve pedestrian safety through the bridge crossing; however, this would require widening the bridge abutments by approximately 2-3 feet along Muddy Cove Brook.

Widening the abutments would result in additional permanent impacts to Muddy Cove Brook and the adjacent Salt Marsh. This alternative has a greater impact to Resource Areas, while providing limited benefit to pedestrians and bicyclists due to the lack of pedestrian infrastructure in the area, therefore this was not selected as the preferred alternative.

11.4 TIDAL CROSSING WIDENING

This alternative involves full replacement of the Pleasant Street bridge, with a widened hydraulic opening to reduce the tidal restriction of Muddy Cove Brook. Creating a wider hydraulic opening would require installing the proposed abutments upgradient of the existing structures. Due to right-of-way constraints along Pleasant Street, limited space is available to accommodate the widened crossing. The intersection with Muddy Cove Lane immediately to the south restricts potential widening to the north side of the crossing, where the design would overlap with Resource Areas and protected Article 97 land. This means that the tidal restriction cannot be eliminated without permanent loss of Salt Marsh and loss of land protected under Article 97.

While the existing bridge creates a tidal restriction, the extent of the restriction is limited to the area immediately upstream along Muddy Cove Brook, where it is contained by a dam near County Street. The base 10-year flood elevation of the Taunton River is located above the surface of Pleasant Street; therefore, the tidal restriction does not contribute to coastal flooding in the area. This alternative would require significant additional cost and Resource Area impacts with a limited benefit; therefore, it was not selected as the preferred alternative.

12.0 COASTAL ZONE MANAGEMENT CONSISTENCY

The following section identifies the Massachusetts Coastal Zone Management (CZM) policies (301 CMR 20.00) and describes how the Project is consistent with these policies.

12.1 COASTAL HAZARDS POLICIES

12.1.1 COASTAL HAZARDS POLICY #1

Preserve, protect, restore, and enhance the beneficial functions of storm damage prevention and flood control provided by natural coastal landforms, such as dunes, beaches, barrier beaches, coastal banks, land subject to coastal storm flowage, salt marshes, and land under the ocean.

The Project area has been altered from its natural state since the construction of the existing bridge in 1914, which was renovated in 1949. The Project will enhance the Site's capacity to provide storm damage prevention and flood control through the replacement of existing deteriorating transportation infrastructure. Modified rock fill existing at all four bridge quadrants will be reestablished as part of the Project for slope stabilization. To avoid extensive impacts to the right-of-way, roadway profile, and tidal Waters of the US and Commonwealth, an increase in the span and clearance of the bridge could not be incorporated as part of this project.

12.1.2 COASTAL HAZARDS POLICY #2

Ensure that construction in water bodies and contiguous land areas will minimize interference with water circulation and sediment transport. Flood or erosion control projects must demonstrate no significant adverse effects on the project site or adjacent or downcoast areas.

The purpose of the Project is to replace aging infrastructure and the Project not intended to be a flood or erosion control project; however, in-water controls such as cofferdams will be installed during construction so activities can be completed in a dry condition and minimize sedimentation to Muddy Cove Brook and the Taunton River. It is anticipated that the Contractor will be required to maintain flow within the channel for the duration of construction and will be required to prevent harm to the ecology of Muddy Cove Brook and the Taunton River, land under water, and surrounding land. Additionally, erosion and

sediment control measures will be implemented along the limit of work on land, downgradient of the disturbed areas during construction to minimize water quality impacts to adjoining resource areas.

12.1.3 COASTAL HAZARDS POLICY #3

Ensure that state and federally funded public works projects proposed for location within the coastal zone will:

- *Not exacerbate existing hazards or damage natural buffers or other natural resources.*

  The Project has been designed to avoid, minimize, and mitigate impacts to coastal resource areas. The replacement bridge is proposed generally within the same footprint as the existing bridge and bridge abutments will be approximately the same size as existing abutments. The replacement bridge will generally mirror existing conditions for span and clearance to avoid impacts to the roadway profile, right of way, and tidal Waters of the US and Commonwealth. Therefore, the proposed Project will not exacerbate existing hazards or damage natural buffers or other natural resource more than existing conditions. Permanent impacts below the Mean High Water are associated with reestablishing existing rock fill for slope stabilization.

- *Be reasonably safe from flood and erosion-related damage.*

  The Project is within an area already prone to flood and erosion damage and proposes to replace existing aging transportation infrastructure. For additional slope stabilization and protection from flood and erosion damage, existing rock fill will be refreshed at all four bridge quadrants.

- *Not promote growth and development in hazard-prone or buffer areas, especially in velocity zones and Areas of Critical Environmental Concern.*

  The Project is located within an existing developed area and within Land Subject to Coastal Storm Flowage (Flood Zone AE) but is not located within a velocity zone or an Area of Critical Environmental Concern. Pleasant Street is a local road that conveys traffic from Taunton to Somerset in eastern Dighton, and Muddy Cove Lane on the southwest side of the bridge is a local road that conveys traffic between Pleasant Street and County Street. Although work is proposed within coastal floodplain, the location is already developed, and the Project involves replacement of existing transportation infrastructure. The proposed bridge replacement is not likely to promote additional development in the area.

- *Not be used on Coastal Barrier Resource Units for new or substantial reconstruction of structures in a manner inconsistent with the Coastal Barrier Resource/Improvement Acts.*

  This policy is not applicable to the Project, as the Project is for roadway infrastructure and is not located in a CBRS designated area.

12.1.4 COASTAL HAZARDS POLICY #4

Prioritize acquisition of hazardous coastal areas that have high conservation and/or recreation values and relocation of structures out of coastal high-hazard areas, giving due consideration to the effects of coastal hazards at the location to the use and manageability of the area.

The Project is located within an existing developed area and proposes the replacement of existing transportation infrastructure. To maintain safe traffic operations in Dighton, and to ensure safe passage of motorists on Pleasant Street over Muddy Cove Brook, there is no other feasible location for the Project. The project will improve pedestrian connectivity within the Project area including to Tricentennial Park.

12.2 ENERGY POLICIES

12.2.1 ENERGY POLICY #1

For coastally dependent energy facilities, assess siting in alternative coastal locations. For non-coastally dependent energy facilities, assess siting in areas outside of the coastal zone. Weigh the environmental and safety impacts of locating proposed energy facilities at alternative sites.

This policy does not apply since the Project is not an energy facility.

12.2.2 ENERGY POLICY #2

Encourage energy conservation and the use of renewable sources such as solar and wind power in order to assist in meeting the energy needs of the Commonwealth.

This policy does not apply since the Project is a bridge replacement project.

12.3 GROWTH MANAGEMENT POLICIES

12.3.1 GROWTH MANAGEMENT POLICY #1

Encourage sustainable development that is consistent with state, regional, and local plans and supports the quality and character of the community.

The Town of Dighton created a community -based economic development strategy throughout 2022 and 2023 known as the *Dighton Economic Development Plan* that was adopted by the Dighton Board of Selectmen in December of 2023. Recommendations from this plan are based around the following themes: Zoning Amendments, Rural Economy, Infrastructure, Brownfield Remediation, and Character & Placemaking. Under the infrastructure recommendations, the plan recommends the Town of Dighton "Pursue pedestrian improvements along major corridors to enhance connections to natural resources and increase economic viability". Incorporating sidewalks on the bridge as part of the bridge replacement will allow for connection to other multi-modal improvements outside of the project limits in support of Town economic development plan.

12.3.2 GROWTH MANAGEMENT POLICY #2

Ensure that state and federally funded infrastructure projects in the coastal zone primarily serve existing developed areas, assigning highest priority to projects that meet the needs of urban and community development centers.

The goal of the project is to improve safety and transportation infrastructure on Pleasant Street in eastern Dighton. Review of existing conditions in the Project area noted a lack of pedestrian and bicyclist infrastructure, which has been included as part of the Project.

12.3.3 GROWTH MANAGEMENT POLICY #3

Encourage the revitalization and enhancement of existing development centers in the coastal zone through technical assistance and financial support for residential, commercial, and industrial development.

The Project will provide a benefit to the community through the replacement of aging infrastructure and providing improved pedestrian and bicycle infrastructure. Incorporating a sidewalk on the bridge will allow for future connection to other multi-modal improvements outside of the project limits.

12.4 HABITAT POLICIES

12.4.1 HABITAT POLICY #1

Protect coastal, estuarine, and marine habitats—including salt marshes, shellfish beds, submerged aquatic vegetation, dunes, beaches, barrier beaches, banks, salt ponds, eelgrass beds, tidal flats, rocky shores, bays, sounds, and other ocean habitats—and coastal freshwater streams, ponds, and wetlands to preserve critical wildlife habitat and other important functions and services including nutrient and sediment attenuation, wave and storm damage protection, and landform movement and processes.

The Project will not impact the function of coastal resource areas more than existing conditions. As previously discussed, in-water sediment controls are proposed to minimize sedimentation to Muddy Cove Brook and flow will be maintained within the channel for the duration of construction. Erosion control measures will be implemented along the limit of work on land, downgradient of the disturbed areas during construction to minimize water quality impacts to adjoining resource areas.

12.4.2 HABITAT POLICY #2

Advance the restoration of degraded or former habitats in coastal and marine areas.

The Project is a bridge replacement project and does not propose restoration of degraded or former habitats in coastal and marine areas.

12.5 OCEAN RESOURCES POLICIES

12.5.1 OCEAN RESOURCES POLICY #1

Support the development of sustainable aquaculture, both for commercial and enhancement (public shellfish stocking) purposes. Ensure that the review process regulating aquaculture facility sites (and access routes to those areas) protects significant ecological resources (salt marshes, dunes, beaches, barrier beaches, and salt ponds) and minimizes adverse effects on the coastal and marine environment and other water-dependent uses.

This policy does not apply as the Project does not involve the development of aquaculture.

12.5.2 OCEAN RESOURCES POLICY #2

Except where such activity is prohibited by the Ocean Sanctuaries Act, the Massachusetts Ocean Management Plan, or other applicable provision of law, the extraction of oil, natural gas, or marine minerals (other than sand and gravel) in or affecting the coastal zone must protect marine resources, marine water quality, fisheries, and navigational, recreational and other uses.

This policy does not apply as the Project does not involve the extraction of oil, natural gas, or marine minerals.

12.5.3 OCEAN RESOURCES POLICY #3

Accommodate offshore sand and gravel extraction needs in areas and in ways that will not adversely affect marine resources, navigation, or shoreline areas due to alteration of wave direction and dynamics. Extraction of sand and gravel, when and where permitted, will be primarily for the purpose of beach nourishment or shoreline stabilization.

This policy does not apply as the Project does not involve offshore sand and gravel extraction.

12.6 PORTS AND HARBORS POLICIES

12.6.1 PORTS AND HARBORS POLICY #1

Ensure that dredging and disposal of dredged material minimize adverse effects on water quality, physical processes, marine productivity, and public health and take full advantage of opportunities for beneficial re-use.

It is estimated that 98.2 cy of dredging will be required below the Mean High Water Elevation to excavate to 1-foot below the bridge footings. In-water controls such as cofferdams will be installed so activities can be completed in dry conditions and to minimize sedimentation to Muddy Cove Brook and the Taunton River. It is anticipated that the Contractor will be required to maintain flow within the channel for the duration of construction and will be required to prevent harm to the ecology of Muddy Cove Brook and the Taunton River, land under water, and surrounding land.

Due to the location of the former Zeneca Specialties Disposal Site and associated Disposal Sites upgradient and upstream of the Project, there is the potential that sediment within Muddy Cove Brook will be contaminated. Dredge material will be contained within the work area and will be tested for contaminants prior to disposal or re-use, as applicable. If dredge material is determined to be contaminated and has no potential for re-use, the dredge material will be disposed of in accordance with applicable local, state, and federal regulations.

12.6.2 PORTS AND HARBORS POLICY #2

Obtain the widest possible public benefit from channel dredging and ensure that Designated Port Areas and developed harbors are given highest priority in the allocation of resources.

The Project does not propose channel dredging. The proposed dredging for this Project is associated with excavation for the new bridge abutments.

12.6.3 PORTS AND HARBORS POLICY #3

Preserve and enhance the capacity of Designated Port Areas to accommodate water-dependent industrial uses and prevent the exclusion of such uses from tidelands and any other DPA lands over which an EEA agency exerts control by virtue of ownership or other legal authority.

This policy does not apply as the Project is not located within a Designated Port Area.

12.6.4 PORTS AND HARBORS POLICY #4

For development on tidelands and other coastal waterways, preserve and enhance the immediate waterfront for vessel-related activities that require sufficient space and suitable facilities along the water's edge for operational purposes.

The Taunton River and Muddy Cove Brook are navigable waters/flowed tidelands. As previous discussed, the possibility of increasing the clearance of the bridge for personal watercraft use was reviewed during Project design. Due to the existing Pleasant Street roadway profile, the presence of Muddy Cove Lane located immediately southwest of the bridge, and adjacent properties along the roadway, it was determined that increasing the clearance would require significant changes to the roadway profile of both Muddy Cove Lane and Pleasant Street, as well as extensive right-of-way impacts. It was therefore determined that increasing the clearance was not feasible as part of the proposed bridge replacements project. The proposed bridge conditions will generally mirror existing conditions for span and clearance to avoid extensive impacts to roadway conditions.

12.6.5 PORTS AND HARBORS POLICY #5

Encourage, through technical and financial assistance, expansion of water-dependent uses in Designated Port Areas and developed harbors, re-development of urban waterfronts, and expansion of physical and visual access.

This policy does not apply as the Project proposes the replacement of an existing bridge and does not propose the expansion of water-dependent uses.

12.7 PROTECTED AREAS POLICIES

12.7.1 PROTECTED AREAS POLICY #1

Preserve, restore, and enhance coastal Areas of Critical Environmental Concern, which are complexes of natural and cultural resources of regional or statewide significance.

This policy does not apply as the Project is not located within an Area of Critical Environmental Concern.

12.7.2 PROTECTED AREAS POLICY #2

Protect state designated scenic rivers in the coastal zone.

The Taunton River, a federally-designated Wild and Scenic River, is located to the east of the Project. Replacement of the existing bridge will not impact the recreational or aesthetic value of the Taunton River as a Wild and Scenic River over existing conditions. Impacts to the recreational and aesthetic value of this portion of the Taunton River during construction will be temporary, and best management practices will be adhered to for the protection the Taunton River.

12.7.3 PROTECTED AREAS POLICY #3

Ensure that proposed developments in or near designated or registered historic places respect the preservation intent of the designation and that potential adverse effects are minimized.

Based on the Massachusetts Cultural Resource Information System (MACRIS) the Project is located within the Lower Taunton River Area Historic district (DIG.H), which contains two (2) historic properties within or immediately adjacent to the Project:

- Muddy Cove (DIG.941) – Muddy Cove Lane at Pleasant Street
- Muddy Cove Bridge (DIG.942) – Pleasant Street

The Nationally-Registered Dighton Wharves Historic District (GID.D) is located south of the Project and contains several properties on the National Register of Historic Places. The Project will be reviewed by the Massachusetts Historical Commission (MHC), the Massachusetts Board of Underwater Archaeological Resources (BUAR), Tribal Historic Preservation Officers (THPO) and local historical societies.

12.8 PUBLIC ACCESS POLICIES

12.8.1 PUBLIC ACCESS POLICY #1

Ensure that development (both water-dependent or nonwatery-dependent) of coastal sites subject to state waterways regulation will promote general public use and enjoyment of the water's edge, to an extent commensurate with the Commonwealth's interests in flowed and filled tidelands under the Public Trust Doctrine.

The Project proposes the replacement of aging infrastructure and does not propose new development. As an infrastructure improvement project, the project will improve safety for motorists, pedestrians, and bicyclists.

12.8.2 Public Access Policy #2

Improve public access to existing coastal recreation facilities and alleviate auto traffic and parking problems through improvements in public transportation and trail links (land- or water-based) to other nearby facilities. Increase capacity of existing recreation areas by facilitating multiple use and by improving management, maintenance, and public support facilities. Ensure that the adverse impacts of developments proposed near existing public access and recreation sites are minimized.

The Project does not propose recreational facilities; however, it does propose to replace and improve transportation infrastructure for the safety of motorists, pedestrians, and bicyclists on Pleasant Street.

12.8.3 Public Access Policy #3

Expand existing recreation facilities and acquire and develop new public areas for coastal recreational activities, giving highest priority to regions of high need or limited site availability. Provide technical assistance to developers of both public and private recreation facilities and sites that increase public access to the shoreline to ensure that both transportation access and the recreation facilities are compatible with social and environmental characteristics of surrounding communities.

This policy does not apply as the Project does not propose to expand, acquire, or develop recreational facilities. The Project does propose to replace and improve transportation infrastructure for the safety of motorists, pedestrians, and bicyclists on Pleasant Street, which will connect to Tricentennial Park.

12.9 Water Quality Policies

12.9.1 Water Quality Policy #1

Ensure that point-source discharges and withdrawals in or affecting the coastal zone do not compromise water quality standards and protect designated uses and other interests.

As previously discussed, in-water controls are proposed to protect the water quality of Muddy Cove Brook, the Taunton River. Erosion control measures will be implemented along the limit of work on land, downgradient of the disturbed areas during construction to minimize water quality impacts to adjoining resource areas and salt marsh.

12.9.2 Water Quality Policy #2

Ensure the implementation of nonpoint source pollution controls to promote the attainment of water quality standards and protect designated uses and other interests.

See the discussion under Water Quality Policy #2.

12.9.3 Water Quality Policy #3

Ensure that subsurface waste discharges conform to applicable standards, including the siting, construction, and maintenance requirements for on-site wastewater disposal systems, water quality standards, established Total Maximum Daily Load limits, and prohibitions on facilities in high-hazard areas.

This policy does not apply as the Project does not include construction of on-site wastewater disposal systems.

12.10 CONSISTENCY CERTIFICATION

MassDOT believes the proposed bridge improvements are consistent with the CZM policies evaluated above. Although the Project results in impact to coastal resources, every effort has been made to reduce and mitigate those impacts to the maximum extent possible, while making infrastructure improvements for public safety and transportation connectivity. The nature of the Project presents unique challenges and needs given the existing roadway layout, the age of the existing bridge, and the need to provide pedestrian and bicycle infrastructure. As a result, the unique demands of the Project have been balanced with the numerous coastal resource requirements and we believe that a well-designed and pragmatic Project is the result.

13.0 CONCLUSION

The proposed Pleasant Street Bridge Replacement Project will replace the existing structure that carries Pleasant Street over Muddy Cove Brook to improve safety and transportation infrastructure along the Pleasant Street corridor in eastern Dighton, Massachusetts. The updated substructure and superstructure will include modern safety features and infrastructure improvements. All temporary impacts to WOTUS will be fully mitigated through in-place restoration.

The Project has been designed to address the safety and operational deficiencies of the previous bridge structure. Impacts to Muddy Cove Brook have been avoided and mitigated to the extent practicable. The applicant respectfully requests that MassDEP and the US Army Corps of Engineers find these measures adequately protective of the interests identified in the 401 Water Quality Regulations and Massachusetts General Permit and issue, respectively, a Water Quality Certificate and Authorization under the Massachusetts General Permit approving the work shown on the accompanying plan set.

APPENDIX B

- **Figure 1 – Site Locus**
- **Figure 2 – Aerial Site Locus**
- **Figure 3 – Environmental Resources Map**
- **Figure 4 –Wildlife Habitat Resources Map**
- **Figure 5 – FEMA FIRMette**
- **Figure 6 – USGS Soil Survey Map**



Figure 1
Site Locus
Pleasant Street Bridge
Dighton, MA

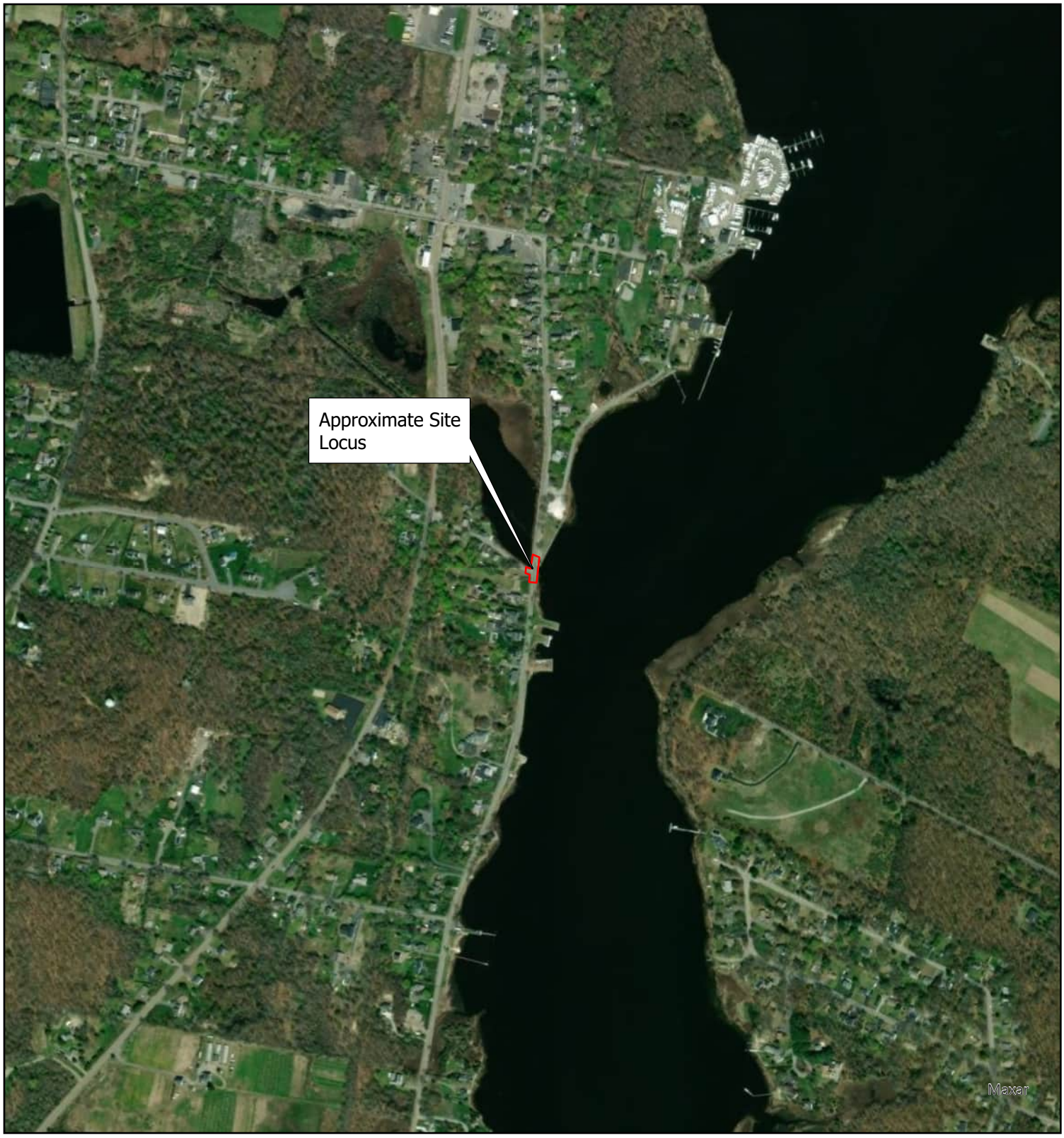
N
W E
S

0 1,000 2,000 Feet

1 inch = 1,000 feet

Data Source: MassGIS USGS Color Ortho Imagery (2009)

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Figure 2
Aerial Site Locus
Pleasant Street Bridge
Dighton, MA

N
W E
S

0 1,000 2,000 Feet

1 inch = 1,000 feet

Data Source: USGS Topographic Map (1982-1990)

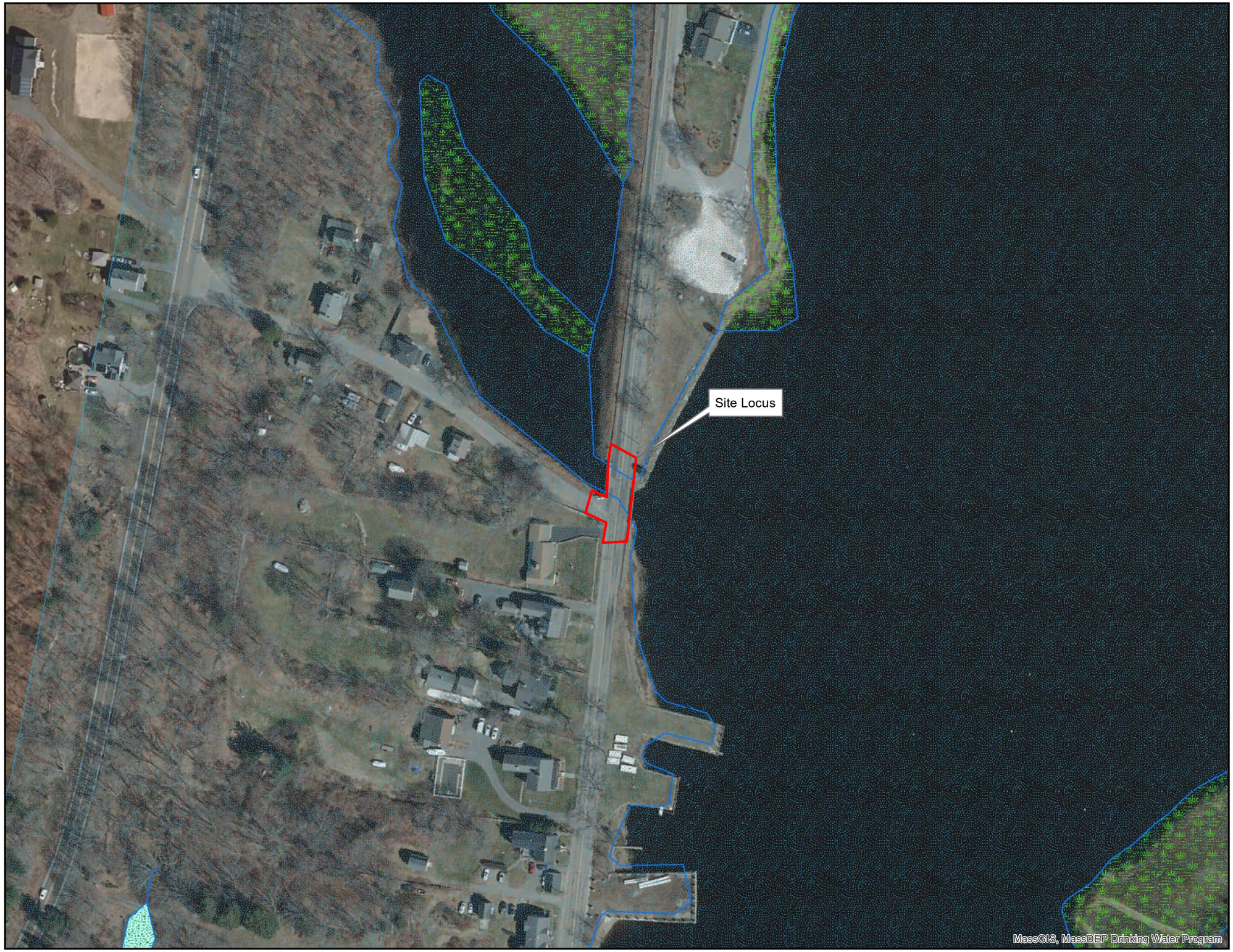


Figure 3
Environmental Resource Areas
Pleasant Street Bridge
Dighton, MA

Legend

- Site Locus
- CZM Coastal Zone
- MassDEP Hydrologic Feature

Resource Type

- Bog
- Inland Wetlands
- Barrier Beach
- Coastal Beach/Coastal Dune
- Deep Marsh
- Salt Marsh
- ZONE A
- ZONE B
- ZONE C
- Outstanding Resource Water
- DEP Approved Zone I
- MassDEP Zone II
- MassDEP IWPA

Chapter 91 Jurisdiction

- Contemporary High Water
- Marsh Boundary - seaward
- Historic High Water
- Jurisdiction

N
W E
S

0 125 250 Feet

1 inch = 125 feet

Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), Tidelands Jurisdiction Data (2011), Surface Water Protection Areas, MassDEP Grounwater Protection Zones.

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Figure 4
Wildlife Habitat
Pleasant Street Bridge
Dighton, MA

Legend

- Site Locus
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- NHESP Priority Habitat of Rare Species
- NHESP Estimated Habitat of Rare Wildlife

Shellfish Suitability Areas

Habitat

- American Oyster
- Bay Scallop
- Blue Mussel
- European Oyster
- Ocean Quahog
- Quahog
- Razor Clam
- Sea Scallop
- Soft-shelled Clam
- Surf Clam

Designated Shellfish Growing Areas

Classification Type

- Approved
- Conditionally Approved
- Restricted
- Conditionally Restricted
- Prohibited

N
W E
S

0 125 250 Feet

1 inch = 125 feet

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National Flood Hazard Layer FIRMette

FEMA

71°7'30"W 41°48'48"N



71°6'52"W 41°48'21"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Figure 5

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/24/2022 at 8:34 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Urban land

Hinckley loamy sand, 3 to 8 percent slopes

Water

Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky

Water, saline

Approximate Site Locus

Woodbridge fine sandy loam, 3 to 8 percent slopes

MassGIS

Figure 6
Soil Survey Figure
Pleasant Street Bridge
Dighton, MA

Legend

Soils

N
W E
S

0 125 250
Feet

1 inch = 125 feet

Data Source: MassGIS USGS Color Ortho Imagery (2023), MassDEP Wetlands (2017), NHESP Potential Vernal Pools (2013), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2021), NHESP Estimated Habitats of Rare Species (2021), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014),

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APPENDIX C

- **Delineation Report**

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Resource Area Boundary Delineation
Pleasant Street Bridge Replacement
Dighton, Massachusetts

July 6, 2022
Revised 10/22/2025

On February 23, 2022, BETA Group, Inc. (BETA) conducted resource area boundary identifications/delineations at the Pleasant Street Bridge in Dighton, Massachusetts (the Site). In addition, BETA revisited the Site on April 24, 2025 to confirm the Resource Area boundaries had not changed since the original delineation. This report describes resource areas Subject to Protection under the Massachusetts Wetlands Protection Act (MGL Chapter 131 Section 40 - the Act), Town of Dighton Conservation Commission Bylaw (Article XXVII – the Bylaw), the federal Clean Water Act (33 U.S.C. §1251 et seq (1972)), the federal Rivers and Harbors Act (33 U.S.C. 403 (1899)), the Massachusetts Clean Waters Act (MGL Chapter 21 Section 26-53), and the Massachusetts Public Waterfront Act (MGL Chapter 91) that exist on the Site and methodologies used to delineate their boundaries.

Site Description

The Site consists of the Pleasant Street Bridge and the associated public right-of-way at the confluence of the Taunton River and Muddy Cove Brook (Figure 1 – Site Locus). The Site is bound to the north by Tricentennial Park, to the south by residential development, to the west by Muddy Cove, and to the east by the Taunton River (Figure 2 – Environmental Resources Map and Figure 3 – Wildlife Habitat Map). General improvements at the Site consist of a bridge constructed in 1914 and its abutments/piers, a two (2)-lane bituminous concrete roadway, and public utilities.

According to the USDA Natural Resources Conservation Service – Soil Survey, mapped soils on the Site and in the vicinity of the Site are classified as Charlton-Paxton fine sandy loam and Hinckley loamy sand. The Custom Soil Resource Report for Bristol County, Massachusetts is attached.

State protected resource areas identified on the Site include Land Subject to Coastal Storm Flowage (LSCSF), Land Subject to Tidal Action (LSTA), Land Under the Ocean (LUO), Coastal Bank, Salt Marsh, Land Containing Shellfish (LCS), Bank of/Land Under Anadromous Fish Run (Fish Run), Bordering Vegetated Wetlands (BVW), and Riverfront Area (RA). The MassGIS database was used as the initial step in identifying critical areas on and within proximity of the Site that would be examined more closely if construction activities are proposed. The table below describes selected environmentally critical categories as determined through MassGIS.

Table 1. Selected MassGIS Environmental Data Layers

Mapped Resource on or Within Proximity to Site	Yes	No
Area of Critical Environmental Concern		✓
NHESP Certified Vernal Pool		✓
NHESP Potential Vernal Pool		✓
Coldwater Fisheries Resource		✓
NHESP Estimated Habitat of Rare Wildlife		✓
NHESP Priority Habitat of Rare Species		✓
Outstanding Resource Waters		✓
FEMA Flood Zones	✓	

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Mapped Resource on or Within Proximity to Site	Yes	No
Surface Water Protection Area (Zones A and B)		✓
Interim Wellhead Protection Area		✓
Zone I Wellhead Protection Area		✓
Zone II Wellhead Protection Area		✓
Tidelands – Chapter 91 Jurisdiction	✓	
Designated Port Area		✓
CZM Coastal Zone	✓	
Anadromous Fish Presence	✓	
Land Containing Shellfish	✓	
Wild & Scenic River	✓	

Source: MassGIS

Jurisdictional Wetland Resource Areas – Massachusetts Wetlands Protection Act

A site inspection was conducted by BETA's Wetland Scientists on February 24, 2022 to identify and delineate the boundaries of existing wetland resource areas on the Site and in the immediate vicinity of the Site. Resource area boundaries were identified and delineated in accordance with methods developed by the Massachusetts Department of Environmental Protection and Office of Coastal Zone Management's *Applying the Massachusetts Coastal Wetlands Regulations,* dated 2017; the Massachusetts Department of Environmental Protection's *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act*, dated 1995; as well as definitions set forth in the Wetland Regulations, 310 CMR 10.00. Several Coastal and Inland Areas Subject to Protection under the Act exist on the Site and are described below.

Land Subject to Coastal Storm Flowage – FEMA AE Zone – 310 CMR 10.04

According to the FEMA Flood Insurance Rate Map (FIRM) community panel numbers 25005C0253H and 25005C0261G (Figure 4), dated July 16, 2015 and July 16, 2014 respectively, the Site is located within a Zone AE flood hazard (1% annual chance of flooding) associated with coastal storms. The base flood elevation (BFE) of the onsite Zone AE is 14 feet (NAVD88), which defines the extent of LSCSF. Land below the BFE is subject to jurisdiction under the Act

The 500-year floodplain (0.2% annual chance of flooding) is also present at the Site; however, it is not subject to jurisdiction under the Act.

Land Subject to Tidal Action– 310 CMR 10.04

According to the Statement of Jurisdiction at 310 CMR 10.02 and definition at 310 CMR 10.04, LSTA is defined as land subject to the periodic rise and fall of a coastal water body, including spring tides. The landward boundary of this resource area is the extreme high tide elevation (HTL).

LSTA is present at the Site along the Taunton River and Muddy Cove Brook. National Oceanic and Atmospheric Administration (NOAA) monitoring station (ID# 8447386) data was reviewed to determine that the boundary of LSTA at the Site is coincident with elevation 3.76 feet (NAVD88).

Land Under the Ocean – 310 CMR 10.26

According to 310 CMR 10.25(2), LUO is defined as the "land extending from the mean low water (MLW) line seaward to the municipality's jurisdiction and includes estuaries". The Taunton River and

Muddy Cove Brook are tidally influenced estuarine watercourses; therefore, land under these watercourses is, by definition, LUO.

NOAA monitoring station (ID# 8447386) data was reviewed to determine that the boundary of LUO at the Site is coincident with elevation -2.26 feet (NAVD88).

Coastal Bank – 310 CMR 10.30

According to 310 CMR 10.30(2), Coastal Bank is defined as the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland. Coastal Bank was identified on the Site in accordance with the *Wetlands Program Policy 92-1: Coastal Banks: Definition and Delineation Criteria for Coastal Banks,* issued March 3, 1992.

Coastal Bank exists along the Site in three (3) locations and was delineated in the field based on observed topography with blue flagging as described below in Table 2. An analysis of surveyed topography will be required to confirm the flagging as accurate per the aforementioned MassDEP Wetlands Program Policy.

Table 2: Coastal Bank Boundary Description

Flag Series	Waterbody	Coastal Bank Description
CB1 Series Flags CB1-100 to CB1-107 & CB1-200 to CB2-204	Taunton River	The CB1 Series Coastal Bank is associated with a tidally influenced portion of the Taunton River northeast and southeast of the Pleasant Street Bridge. Coastal Bank is apparent in the field and consists of large boulders and adjacent riprap along the Taunton River, which is anticipated to be coincident with the forthcoming topographic assessment of the Coastal Bank boundary. Coastal Bank is anticipated to extend up the grass slope directly northeast of the Pleasant Street Bridge due to a topographic "shelf" present below a clear break in slope. Due to the nature of the rock-lined Coastal Bank, minimal vegetation is present along Coastal Bank and consists of species including beach rose (*Rosa rugosa*), chokeberry (*Aronia floribunda*) and red cedar (*Juniperus virginiana*). The Taunton River is approximately 1,000 feet wide at this location with an unknown water depth and substrate.
CB2 Series Flags CB2-100 to CB2-105	Muddy Cove Brook	The CB2 Series Coastal Bank is associated with Muddy Cove Brook, a tidally influenced perennial tributary to the Taunton River. Coastal Bank is apparent in the field based on an abrupt change in topography and consists of a stone-lined slope. Vegetation present along Coastal Bank includes beach rose and chokeberry. Muddy Cove Brook is approximately 45 feet wide at this location with an unknown water depth and substrate.

Salt Marsh – 310 CMR 10.32

According to 310 CMR 10.32(2), Salt Marsh is defined as a coastal wetland that extends landward up to the highest high tide line (HTL), that is, the highest spring tide of the year, and is characterized by plants that are well adapted to or prefer living in, saline soils.

BETA identified three (3) areas of Salt Marsh at the Site and delineated their boundaries based on field observations with pink flagging. An analysis of surveyed topography has been conducted to determine the definitive Salt Marsh boundary by topography. Areas of all flagged Salt Marshes are above the HTL (3.76 feet – NAVD88). Accordingly, portions of the delineated Salt Marsh are defined as Bordering Vegetated Wetland (BVW).

Table 3: Salt Marsh Boundary Description

Flag Series	Location	Salt Marsh Description
SM1 Series Flags SM1-100 to SM1-109	Northeast of the Pleasant Street Bridge, on the waterward side of the parking lot	The SM1 Series flagging delineates a Salt Marsh located between the Taunton River and Tricentennial Park. The boundary was delineated along a change in grade vegetation where phragmites (*Phragmites australis*) transitions to maintained lawn grass. The Salt Marsh is vegetated with species including phragmites and cordgrass (*Spartina patens*). A formal data plot was not performed at this location.
SM2 Series Flags SM2-100 to SM2-111	Directly southeast of the Pleasant Street Bridge	The SM2 Series flagging delineates a Salt Marsh along the western Coastal Bank of the Taunton River and the eastern side of Pleasant Street. This Salt Marsh is located downgradient of a stonewall and maintained grass along Pleasant Street and is vegetated by species including phragmites and cordgrass. A formal data plot was not performed at this location.
SM3 Series Flags SM3-100 to SM3-115	Northwest of the Pleasant Street Bridge along	The SM3 Series flagging delineates a Salt Marsh along the eastern Coastal Bank of Muddy Cove Brook and the western side Pleasant Street. The attached U.S. Army Corps of Engineers Field Data Sheets describe evidence of hydrology, hydric soils, and hydrophytic vegetation at a specific data plot.

Land Containing Shellfish – 310 CMR 10.34

Land Containing Shellfish (LCS) is defined as land under the ocean, tidal flats, rocky intertidal shores, salt marsh, and land under salt ponds when any such land contains shellfish. The area below the mean low water elevation of the Taunton River is mapped as suitable for American oyster (*Crassostrea* virginica) and Soft-shell clam (*Mya arenaria*) (Figure 3 – Wildlife Habitat Map). NOAA monitoring station (ID# 8447386) data was reviewed to determine that the boundary of LCS at the Site is coincident with elevation -2.26 feet (NAVD88).

Bank of/Land Under Anadromous Fish Run – 310 CMR 10.35

According to 310 CMR 10.35(2), the definition of Fish Run is the area within estuaries, pond, streams, creeks, lakes, or coastal waters, which is spawning or feeding ground or passageway for anadromous or catadromous fish and which is identified by the Division of Marine Fisheries or has been mapped on the Coastal Atlas of the Coastal Zone Management Program.

NOAA data indicates that the Taunton River at the Site is suitable migrating and foraging habitat for the Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). Division of Marine Fisheries identifies Muddy Cove Brook as migratory habitat for alewife (*Alosa pseudoharengus*), blueback herring (*Alosa*

aestivalis), American eel (*Anguilla rostrata*) and white perch (*Morone americana*). Coastal Bank at the Site that is coincident with the boundary of Fish Run is described above in Table 2.

Bordering Vegetated Wetlands – 310 CMR 10.55

According to 310 CMR 10.55(2), the definition of BVW is freshwater wetlands which border on creeks, rivers, streams, ponds and lakes and are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of BVW is the line within which 50% or more of the vegetation community consists of wetland indicator plants and saturated or inundated conditions exist.

BVW is located within the flagged boundaries of the Salt Marshes identified above in Table 3, between the boundary of the HTL (3.76 feet – NAVD88) and the flagged boundary.

Riverfront Area – 310 CMR 10.58

According to its definition at 310 CMR 10.58(3), the boundary of inland RA is the area of land between a River's mean annual high-water (MAHW) line measured horizontally outward from the River and a parallel line located 200 feet away. A River is any natural flowing body of water that empties to any ocean, lake, pond, or other River flowing throughout the year and is shown as perennial on the current United States Geological Survey or more recent map provided by the Department or has a watershed size of at least 0.50 square miles and a predicted flow rate greater than or equal to 0.01 cubic feet per second at the 99% flow duration using the USGS Stream Stats Method.

The coastal RA boundary is instead measured from the Mean High-Water (MHW) line as determined by the location where arithmetic mean of the high-water heights observed over a specific 19-year metonic cycle meets the shore. According to the nearest NOAA monitoring station located in Fall River, MA (ID# 8447386), the MHW elevation associated with the Taunton River and Muddy Cove Brook is 2.10 feet (NAVD88).

Jurisdictional Wetland Resource Areas – Town of Dighton Conservation Commission Bylaw

While it is understood that MassDOT is exempt from local bylaws, a description of locally-protected resource areas is provided here for completeness. The Bylaw is generally consistent with the provisions of the Act, except for the definition of Vernal Pools which are considered jurisdictional whether or not they are certified by Massachusetts Division of Fish and Wildlife.

The Bylaw also sets forth additional protections for jurisdictional areas through the following setback requirements:

- No subsurface sewage disposal system are permitted within the 100-foot buffer zone of any wetland or within 200 feet of any perennial stream.
- No dwellings or structures may be built within 50 feet from the outer edge of any wetland.
- A 25-foot minimum undisturbed vegetated buffer must be provided to protect wetlands and wildlife.
- Isolated wetlands and vernal pools will be considered wetlands and afforded the same setback distances.

Jurisdictional Wetland Resource Areas – Federal Clean Water Act (Section 404)

Waters of the U.S. (Tidal)

According to 33 CFR §328.3(d), tidal waters are defined as "waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects". Several "tidal waters of the United States" subject to the federal Rivers and Harbors Act, 33 U.S.C. 403 (1899) and the federal Clean Water Act, 33 U.S.C. 1251 et seq (1972) are present at and near the Site

The boundary to "tidal waters of the United States" is the High Tide Line (HTL), which is defined at 33 CFR §328.3(c)(7). The boundary of the HTL is approximated using the "King Tide" elevation (3.76 feet – NAVD88). Construction of any structure in, over, or under tidal waters, or work affecting the course, location, condition, or capacity of tidal waters is Subject to Jurisdiction under Section 10 of the Rivers and Harbors Act. Work that requires filling below the boundary of the HTL onsite is Subject to Jurisdiction under Section 404 of the Clean Water Act.

Waters of the U.S. (Freshwater)

The areas of vegetated wetlands upgradient of the HTL located at the Site are "Waters of the United States," and are therefore subject to the federal Clean Water Act, 33 U.S.C. §1251 et seq (1972). The boundary to "Waters of the United States" is the vegetated wetlands boundary, or, in the absence of vegetated wetlands, is the Ordinary High-Water Mark (OHWM) for non-tidal rivers and streams, as specified at 33 CFR §328.4.

According to 33 CFR §328.3(c)(4), Vegetated Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

The waters of the U.S. located at the Site are only considered freshwater waters of the U.S. where they extend above the HTL.

Jurisdictional Wetland Resource Areas – Massachusetts Clean Waters Act (Section 401)

The limit of jurisdiction under Massachusetts Clean Waters Act (Section 401), as specified in 314 CMR 9.00, is the boundary of federally regulated waters. Exceedances of the jurisdictional threshold under 314 CMR 9.00 require filing for a Water Quality Certification under Section 401. Special protections are given to Salt Marsh under Section 401, as any impacts to Salt Marsh require a 401 WQC be submitted to MassDEP.

Jurisdictional Resource Areas – The Massachusetts Public Waterfront Act (Chapter 91)

Any activity that takes place within Flowed Tidelands or Filled Tidelands requires Chapter 91 authorization. Chapter 91 Jurisdiction exists on the Site within the limits of Flowed Tidelands, the boundary of which is defined by the MHW elevation. According to the NOAA station in Fall River, MA (ID# 8447386), the MHW elevation at the Site is 2.10 feet (NAVD88).

Findings and Recommendations

BETA has identified areas Subject to Protection and/or Jurisdiction under the Act, the Bylaw, the federal Clean Water Act, the Massachusetts Clean Waters Act, and the Massachusetts Public Waterfront Act on or within 100 feet of the Site.

July 6, 2022
Revised 10/22/2025

Attachments: Figure 1 - Site Locus
Figure 2 – Environmental Resource Map
Figure 3 – Wildlife Habitat Map
Figure 4 – FEMA FIRMette
Photographic Documentation
US Army Corps of Engineers Field Data Sheets
Custom Soil Report for Bristol County, Massachusetts

Job No: 22.10328.00



Figure 1
Site Locus
Pleasant Street Bridge
Dighton, MA

N
W E
S

0 1,000 2,000 Feet

1 inch = 1,000 feet

BETA
IMPROVING COMMUNITIES TOGETHER

Data Source: MassGIS USGS Color Ortho Imagery (2009)

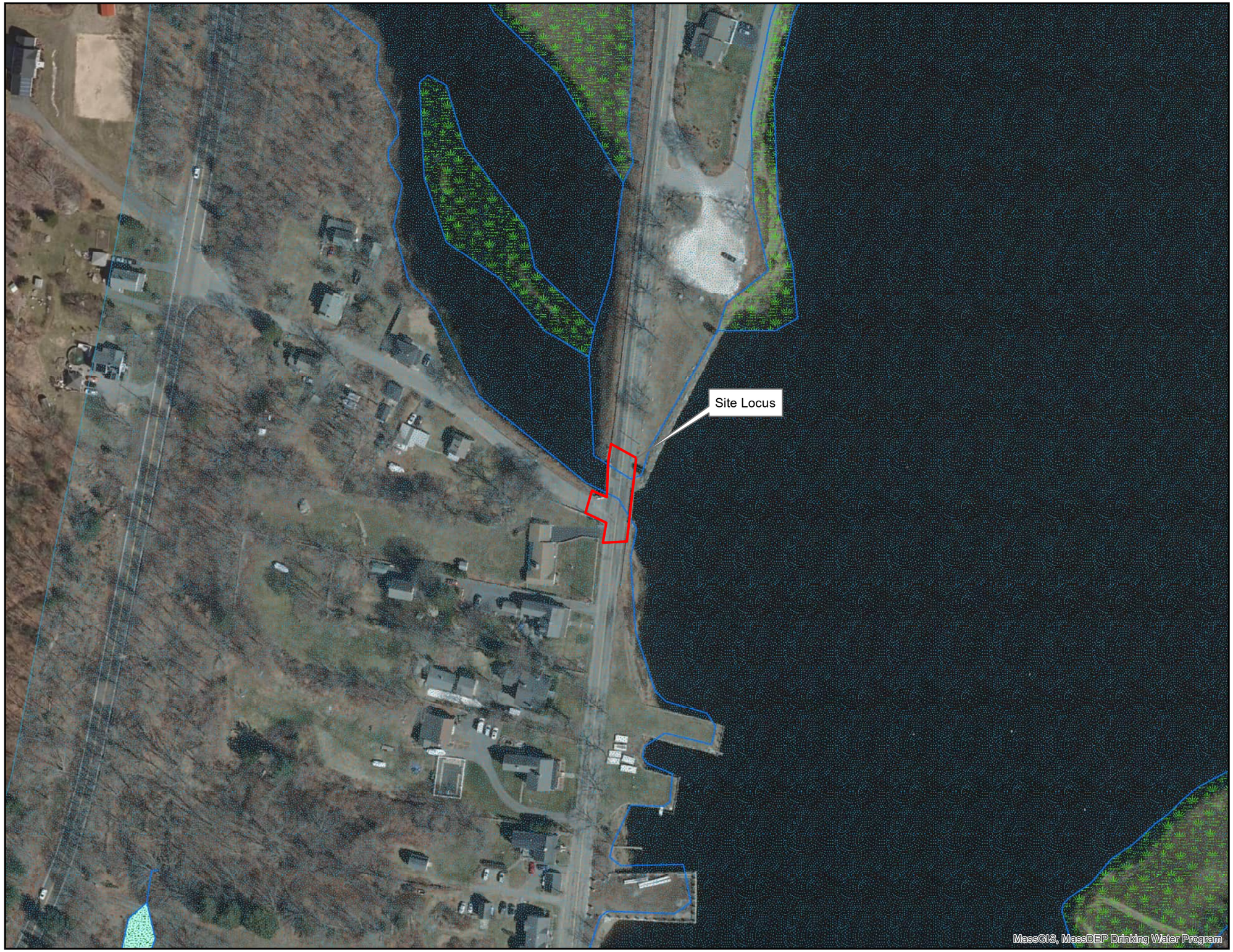


Figure 2
Environmental Resource Areas
Pleasant Street Bridge
Dighton, MA

Legend

- Site Locus
- CZM Coastal Zone
- MassDEP Hydrologic Feature

Resource Type

- Bog
- Inland Wetlands
- Barrier Beach
- Coastal Beach/Coastal Dune
- Deep Marsh
- Salt Marsh
- ZONE A
- ZONE B
- ZONE C
- Outstanding Resource Water
- DEP Approved Zone I
- MassDEP Zone II
- MassDEP IWPA

Chapter 91 Jurisdiction

- Contemporary High Water
- Marsh Boundary - seaward
- Historic High Water
- Jurisdiction

N
W E
S

0 125 250 Feet

1 inch = 125 feet

Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), Tidelands Jurisdiction Data (2011), Surface Water Protection Areas, MassDEP Grounwater Protection Zones.

BETA
IMPROVING COMMUNITIES TOGETHER

Figure 3
Wildlife Habitat
Pleasant Street Bridge
Dighton, MA

Legend

- Site Locus
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- NHESP Priority Habitat of Rare Species
- NHESP Estimated Habitat of Rare Wildlife

Shellfish Suitability Areas

Habitat

- American Oyster
- Bay Scallop
- Blue Mussel
- European Oyster
- Ocean Quahog
- Quahog
- Razor Clam
- Sea Scallop
- Soft-shelled Clam
- Surf Clam

Designated Shellfish Growing Areas

Classification Type

- Approved
- Conditionally Approved
- Restricted
- Conditionally Restricted
- Prohibited

N
W E
S

0 125 250 Feet

1 inch = 125 feet

BETA
IMPROVING COMMUNITIES TOGETHER

National Flood Hazard Layer FIRMette

FEMA

71°7'30"W 41°48'48"N



71°6'52"W 41°48'21"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/24/2022 at 8:34 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Photo 1



View of the CB2 Series Coastal Bank and the SM3 Series Salt Marsh on the western side of the Pleasant Street Bridge—facing northeast

Photo 2



View of the CB1 Series Coastal Bank on the eastern side of the Pleasant Street Bridge—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 3



View of the wrack line upgradient of the CB1 Series Coastal Bank—facing north

Photo 4



View of the CB1 Series Coastal Bank—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 5



View of the CB1 Series coastal bank adjacent to the Pleasant Street Bridge—facing south

Photo 6



View of the CB2 Series coastal bank adjacent to the Pleasant Street Bridge—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 7



View of the CB3 Series coastal bank—facing west

Photo 8



View of the SM1 Series salt marsh—facing northeast

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 9



View of the SM2 Series salt marsh—facing southeast

Photo 10



View of the SM3 Series salt marsh—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 11



View of the SM3 Series salt marsh—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pleasant Street Bridge City/County: Dighton Sampling Date: 2/23/2022

Applicant/Owner: Town of Dighton State: MA Sampling Point: SM3-114 UP

Investigator(s): Laura Krause, Jonathan Niro Section, Township, Range: Bristol County

Landform (hillside, terrace, etc.): Roadside slope Local relief (concave, convex, none): convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.810931 Long: -71.119649 Datum: WGS84

Soil Map Unit Name: Hinckley loamy sand, 3 to 8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: SM3-114 UP

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus velutina*	30	Yes	UPL
2. *Acer rubrum*	10	Yes	FAC
3. *Ulmus americana*	5	No	FACW
4.			
5.			
6.			
7.			
	45	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Lonicera japonica*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. *Rubus allegheniensis*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: 15' radius)			
1. *Smilax rotundifolia*	60	Yes	FAC
2.			
3.			
4.			
	60	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	70	x 3 =	210
FACU species	15	x 4 =	60
UPL species	30	x 5 =	150
Column Totals:	120 (A)		430 (B)

Prevalence Index = B/A = 3.58

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SM3-114 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100						Sandy, Fill
5-14	10YR 3/2	100						Stoney fiill

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compacted

Depth (inches): 14

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pleasant Street Bridge City/County: Dighton Sampling Date: 2/23/2022

Applicant/Owner: Town of Dighton State: MA Sampling Point: SM3-114 WET

Investigator(s): Laura Krause, Jonathan Niro Section, Township, Range: Bristol County

Landform (hillside, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope %: 3-8

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.810931 Long: -71.119649 Datum: WGS84

Soil Map Unit Name: Hinckley loamy sand, 3 to 8 percent slopes NWI classification: E2US3N

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: SM3

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: SM3-114 WET

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Phragmites australis*	98	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	98 =Total Cover		
Woody Vine Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	98	x 2 =	196
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	98 (A)		196 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SM3-114 WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	100					Muck	Histosol

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Bristol County, Massachusetts, Northern Part



February 24, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

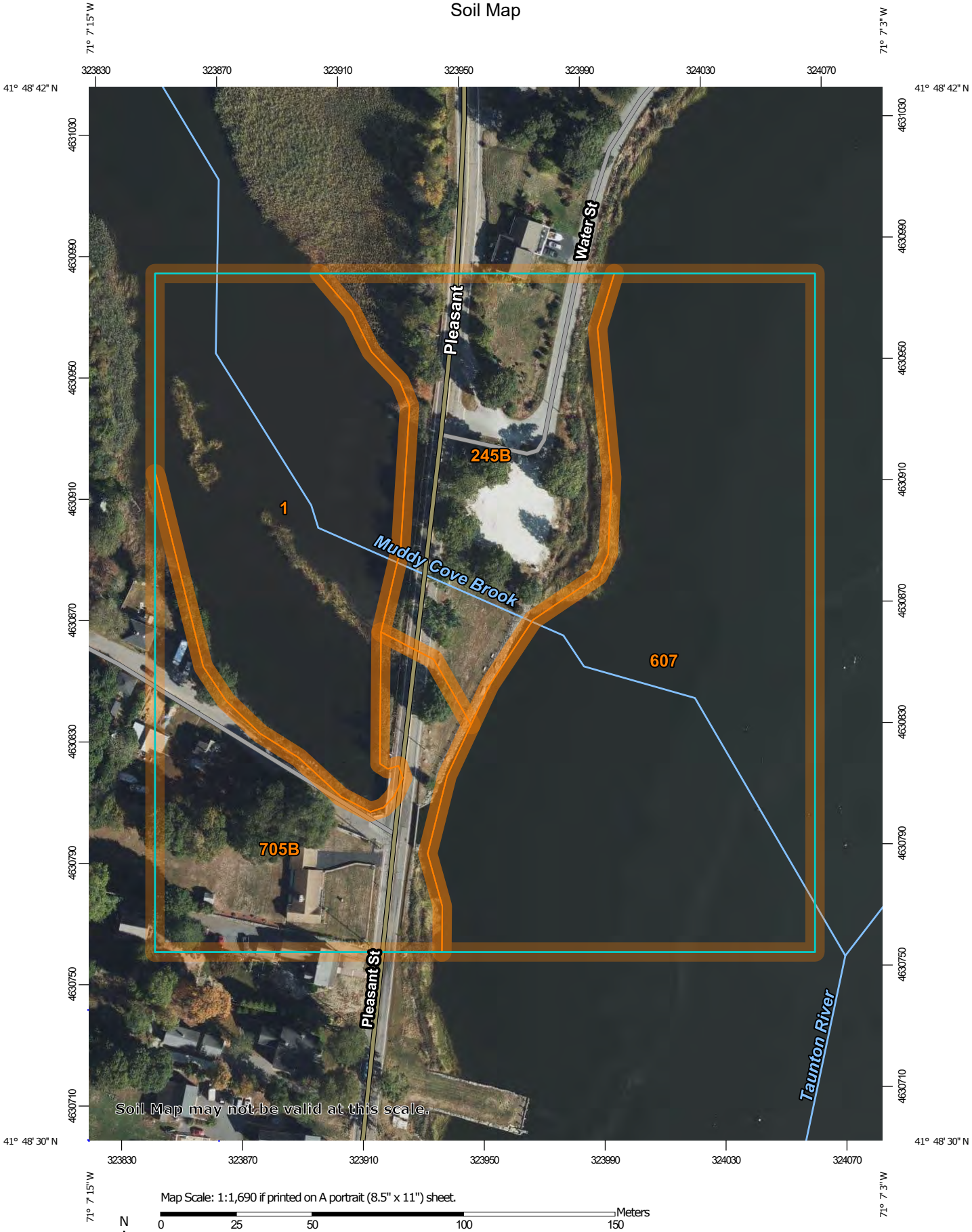
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,690 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bristol County, Massachusetts, Northern Part
Survey Area Data: Version 14, Sep 2, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 25, 2020—Oct 4, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	2.8	22.9%
245B	Hinckley loamy sand, 3 to 8 percent slopes	2.2	18.0%
607	Water, saline	5.2	42.8%
705B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky	2.0	16.2%
Totals for Area of Interest		**12.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Bristol County, Massachusetts, Northern Part

1—Water

Map Unit Setting

National map unit symbol: 997q
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

245B—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8
Elevation: 0 to 1,430 feet
Mean annual precipitation: 36 to 53 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, outwash terraces, kames, kame terraces, moraines, eskers, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent
Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Outwash deltas, outwash terraces, moraines, outwash plains, kame terraces
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Head slope, side slope, base slope, tread
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Agawam

Percent of map unit: 2 percent
Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

607—Water, saline

Map Unit Setting

National map unit symbol: tgbv
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water, saline: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Westbrook

Percent of map unit: 5 percent
Landform: Marshes
Hydric soil rating: Yes

705B—Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2w6b2
Elevation: 0 to 290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, very stony, and similar soils: 50 percent
Paxton, very stony, and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex

Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Paxton, Very Stony

Setting

Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches

Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Woodbridge, very stony

Percent of map unit: 9 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Ridgebury, very stony

Percent of map unit: 4 percent
Landform: Ground moraines, hills, drainageways, drumlins, depressions
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 4 percent
Landform: Ridges, hills
Hydric soil rating: No

Gloucester, very stony

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

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APPENDIX D

- **Photographic Documentation**

Photo 1



View facing upstream of the Pleasant Street Bridge—facing west

Photo 2



View facing downstream of the Pleasant Street Bridge—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 3



View of the northeast quadrant of the Pleasant Street Bridge—facing north

Photo 4



View of the southeast quadrant of the Pleasant Street Bridge—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022 and April 24, 2025

Photo 5



View of the northwest quadrant of the Pleasant Street Bridge—facing northeast

Photo 6



View of the southwest quadrant of the Pleasant Street Bridge—facing east

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022 and April 24, 2025

Photo 7



View of the Pleasant Street roadway—facing south

Photo 8



View of the intersection of Pleasant Street and Muddy Cove Lane—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 16, 2022

APPENDIX E

- **SHPO and THPO Correspondence and PNF**

Jergensen, Kurt E. (DOT)

From: Microsoft Outlook
To: Robinson, David S (EEA)
Sent: Tuesday, October 7, 2025 11:39 AM
Subject: Delivered: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)

Your message has been delivered to the following recipients:

Robinson, David S (EEA) (David.S.Robinson@mass.gov)

Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)



Dighton, Br.
D-08-002 bridg...

Jergensen, Kurt E. (DOT)

From: Jergensen, Kurt E. (DOT)
Sent: Tuesday, October 7, 2025 11:39 AM
To: Robinson, David S (EEA)
Cc: Harwood, Jameson (DOT)
Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)
Attachments: Bridge D-08-002 PNF (MassDOT 613636).pdf; Locus map.pdf; 20250425 25% Highway Plans 613636.pdf; 20250708 Bridge Sketch Plans Rev3 613636.pdf

Dear Mr. Robinson,

MassDOT is submitting the enclosed information regarding the proposed bridge replacement project to the Board of Underwater Archaeological Resources to meet the Section 106 consultation requirements of the US Army Corps of Engineers. Please submit any written comments or concerns regarding historic or archaeological properties that may be affected by this project to Carrie Lavallee, P.E., Chief Engineer, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA 02116-3973, Attn: Jameson Harwood.

You also may send comments, questions, or requests for more information by email to either myself or Jameson.

Thank you very much.

Kurt Jergensen
Historic Bridge Specialist
Cultural Resources Unit, Environmental Section
MassDOT Highway Division
Ten Park Plaza, Boston, MA 02116
Cell: 207-590-4999

Jergensen, Kurt E. (DOT)

From: Microsoft Outlook
To: Bettina Washington
Sent: Tuesday, October 7, 2025 11:35 AM
Subject: Relayed: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Bettina Washington (thpo@wampanoagtribe-nsn.gov)

Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)



Dighton, Br.
D-08-002 bridg...

Jergensen, Kurt E. (DOT)

From: Jergensen, Kurt E. (DOT)
Sent: Tuesday, October 7, 2025 11:35 AM
To: Bettina Washington
Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)
Attachments: Bridge D-08-002 PNF (MassDOT 613636).pdf; Locus map.pdf; 20250425 25% Highway Plans 613636.pdf; 20250708 Bridge Sketch Plans Rev3 613636.pdf

Dear Ms. Washington,

MassDOT is submitting the enclosed information regarding the proposed bridge replacement project to the Wampanoag Tribe of Gay Head (Aquinnah) to meet the Section 106 consultation requirements of the US Army Corps of Engineers. Please submit any written comments or concerns regarding historic or archaeological properties that may be affected by this project to Carrie Lavallee, P.E., Chief Engineer, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA 02116-3973, Attn: Jameson Harwood.

You also may send comments, questions, or requests for more information by email to either myself or Jameson.

Thank you very much.

Kurt Jergensen
Historic Bridge Specialist
Cultural Resources Unit, Environmental Section
MassDOT Highway Division
Ten Park Plaza, Boston, MA 02116
Cell: 207-590-4999

Jergensen, Kurt E. (DOT)

From: Microsoft Outlook
To: David Weeden; 106review@mwtribe-nsn.gov
Sent: Tuesday, October 7, 2025 11:38 AM
Subject: Relayed: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

David Weeden (david.weeden@mwtribe-nsn.gov)

106review@mwtribe-nsn.gov (106review@mwtribe-nsn.gov)

Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)



Dighton, Br.
D-08-002 bridg...

Jergensen, Kurt E. (DOT)

From: Jergensen, Kurt E. (DOT)
Sent: Tuesday, October 7, 2025 11:38 AM
To: David Weeden
Cc: 106review@mwtribe-nsn.gov; Harwood, Jameson (DOT)
Subject: Dighton, Br. D-08-002 bridge replacement (MassDOT #613636)
Attachments: Bridge D-08-002 PNF (MassDOT 613636).pdf; Locus map.pdf; 20250425 25% Highway Plans 613636.pdf; 20250708 Bridge Sketch Plans Rev3 613636.pdf

Dear Mr. Weeden,

MassDOT is submitting the enclosed information regarding the proposed bridge replacement project to the Mashpee Wampanoag Tribe to meet the Section 106 consultation requirements of the US Army Corps of Engineers. Please submit any written comments or concerns regarding historic or archaeological properties that may be affected by this project to Carrie Lavallee, P.E., Chief Engineer, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA 02116-3973, Attn: Jameson Harwood.

You also may send comments, questions, or requests for more information by email to either myself or Jameson.

Thank you very much.

Kurt Jergensen
Historic Bridge Specialist
Cultural Resources Unit, Environmental Section
MassDOT Highway Division
Ten Park Plaza, Boston, MA 02116
Cell: 207-590-4999

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A
MASSACHUSETTS HISTORICAL COMMISSION
220 MORRISSEY BOULEVARD
BOSTON, MASS. 02125
617-727-8470, FAX: 617-727-5128

PROJECT NOTIFICATION FORM

Project Name:	Bridge replacement, Bridge D-08-002 (MassDOT #613636)
Location /Address:	Pleasant Street over Muddy Cove
City/Town:	Dighton
Project Proponent	
Name:	Massachusetts Department of Transportation
Address:	10 Park Plaza
City/Town/Zip/Telephone:	Boston, MA 02116 / T: 207-590-4999

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

Agency Name	**Type of License or funding (specify)**
FHWA (lead agency)	Federal earmark funds
US Army Corps of Engineers	Section 404 permit

Project Description (narrative):

The Massachusetts Department of Transportation (MassDOT) proposes to replace Bridge D-08-002 which carries Pleasant Street over Muddy Cove n Dighton. Bridge D-08-002 is a single-span reinforced concrete T-beam bridge constructed in 1914 and rehabilitated in 1949. The superstructure is supported by cast-in-place reinforced concrete counterfort abutments with wingwalls. The bridge has closed-panel reinforced concrete parapet railings. The crossing presently carries two 12' -wide travel lanes, with a 4'-wide shoulder along the west side and a 4’-wide grass berm on the east side.

The proposed work will include full replacement of the bridge on existing alignment with a structure 3' 8" wider than existing. The new structure will consist of a single-span precast concrete NEXT beam superstructure supported by cast-in-place reinforced concrete integral abutments on steel H-pile footings. The bridge will have three-rail painted steel ST-MTL4 railings and will carry two 11' -wide travel lanes with a 7'-wide shoulder on the west side of the bridge, and a 2’-wide shoulder with a 6'-wide sidewalk on the east.

Other work includes full-depth pavement reconstruction within the existing footprint along the bridge approaches, encompassing a total length of 250', including the bridge; pavement reconstruction within the existing footprint along Muddy Cove Lane, extending approximately 80’ toward the west; installation of granite curbing along the east side of the roadway, and HMA berm to the southwest of Muddy Cove Lane; riprap installation adjacent to the bridge abutments to provide scour protection; permanent relocation of two utility poles located to the north of the bridge and relocation of existing overhead utilities that cross Muddy Cove toward a utility pole on the north side of Muddy Cove Lane, to be permanently shifted approximately 40' to the north; in-kind replacement of guardrail along the bridge approaches and along Muddy Cove Lane, including extension of existing guardrail to the southeast of the bridge and relocation of an existing fire hydrant; installation of temporary erosion and sedimentation barrier, and related work.

APPENDIX A (continued)

Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition.

N/A

Does the project include rehabilitation of any existing buildings? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation

N/A

Does the project include new construction? If so, describe (attach plans and elevations if necessary).

Bridge D-08-002 will be demolished and replaced on existing alignment with a slightly wider structure.

To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify.

Review of the National Register of Historic Places revealed that the southern end of the Area of Potential Effects (APE) is located within the National Register-listed **Dighton Wharves Historic District (DIG.D)**. The **Thomas Andrews House/ Old Customs House (DIG.105)** is a contributing property within the historic district located about 160' to the southwest of the bridge. The Thomas Andrews House is a ca. 1770 two-story, five bay side gable Georgian style dwelling, located at 2298 Pleasant Street. The property also includes land situated along the shoreline on Taunton River on the east side of Pleasant Street.

Review of the Inventory of Historic and Archaeological Assets of the Commonwealth revealed that Bridge D-08-002 (DIG.942) is inventoried as part of the Lower Taunton River Area (DIG.H).

A review of the MHC's archaeological maps in Macris Maps revealed three recorded pre-contact sites in the immediate vicinity of the project's APE: 19-BR-102 (Taunton River 3 Site); 19-BR-99 (Taunton River 2/ Russell Philips Site); and 19-BR-289 (Dutra's Farm Site). MassDOT conducted a site visit to the project area on November 1, 2024. Although undisturbed areas near Taunton River are likely to be sensitive for archaeological resources, it is the opinion of the MassDOT Archaeologist that low sensitivity can be ascribed to the project's direct APE based on the impacts of past roadway, bridge, utility, and drainage construction and roadside development. The proposed bridge will be constructed on the same alignment as the existing bridge. Buried utilities within the APE include a 2" diameter gas main and an 8" diameter water main. Soil borings indicate the Pleasant Street approaches were constructed on 8'-15' of fill in order to carry the roadway crossing above the shoreline along Muddy Cove and Taunton River.

What is the total acreage of the project area?

Woodland		acres	Productive Resources:		
Wetland		acres	Agriculture		acres
Floodplain	<1	acres	Forestry		acres
Open Space		acres	Mining/Extraction		acres
Developed	<1	acres	Total Project Acreage	<1	acres

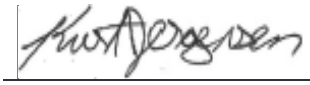
What is the acreage of the proposed new construction? <1 acres

APPENDIX A (continued)

What is the present land use of the project area?
The Project area is situated between a tidal cove and the Taunton River. The bridge is flanked by Muddy Cove to the west, a small public to the northeast, a ca. 1950 ranch to the southwest, and late 18th / early 19th century resources within the NR-listed Dighton Wharves Historic District farther south.

Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location.

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

Signature of person submitting this form:  **Date:** 10/6/2025

Name: Kurt Jergensen

Address: 10 Park Plaza

City/Town/Zip: Boston, MA 02116

Telephone: 207-590-4999

cc: Wampanoag Tribe of Gay Head (Aquinnah) THPO
Mashpee Wampanoag Tribe THPO
BUAR



0 1000 2000 4000 6000

SCALE, FEET

This Image provided by MassGIS is from U.S.G.S. Topographic
7.5 X 15 Minute Series
Somerset, MA Quadrangle, 1985.
Datum is National Geodetic Vertical Datum of 1929 (NGVD29).
Contour Interval is 3 Meters.



MASSACHUSETTS
QUADRANGLE LOCATION

Pleasant Street Over Muddy Cove Bridge No. D-08-002 (3L9) Dighton, MA	GEI Consultants	SITE LOCATION MAP
BETA Group, Inc. Norwood, Massachusetts	Project 2200710	July 2025 Fig. 1

\\geiconsultants.com\data\Data_Storage\Working\BETA GROUP\2200710 Pleasant Street Over Muddy Cove\00_CAD\Figures\GT\2200710-01 slm

APPENDIX F

- **USFWS, DMF and NMFS Consultation**

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To: 08/11/2025 13:29:57 UTC
Project Code: 2025-0133704
Project Name: Pleasant Street Bridge Replacement

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

PROJECT SUMMARY

Project Code: 2025-0133704
Project Name: Pleasant Street Bridge Replacement
Project Type: Bridge - Replacement
Project Description: Replacement of the bridge carrying Pleasant Street over Muddy Cove Brook

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.8094463,-71.11968813773355,14z



Counties: Bristol County, Massachusetts

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Mia Callahan
Address: 889 Elm Street
Address Line 2: Floor 2
City: Manchester
State: NH
Zip: 03101
Email mcallahan@beta-inc.com
Phone: 5857057815

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 3301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To: 09/09/2025 20:45:42 UTC
Project code: 2025-0147118
Project Name: 613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE

Subject: Not Likely to Adversely Affect Concurrence verification letter for the '613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the 613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are <u>NOT</u> yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Project does not meet the criteria for a NLAA determination under the PBO/PCO. **If the Service does <u>not</u> notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Project under the terms of the NLAA concurrence provided in the PBO/PCO**. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO/PCO.

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the User's Guide). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE

DESCRIPTION

613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE

Replacement of the existing bridge carrying Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts

Monarch Butterfly: Proposed Threatened Species only. The project action will not have an intentional take on the species and therefore will not jeopardize the continued existence of the proposed species.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.80954835,-71.11988874167976,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

   A) Federal Highway Administration (FHWA)

2. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

   Automatically answered
   Yes

3. [Semantic] Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact the Field Office listed in the letterhead of this letter.

   Automatically answered
   No

4. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

   Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

   No

5. Is your project located within a karst area?

   No

6. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

   Note: For definitions of bridge, culvert, and structure, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat.

   Yes

7. Do your project’s activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

   Yes

8. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

   Note: See the Service's summer survey guidance for current definitions of suitable habitat [https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html].

   Yes

9. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

   Note: See the Service's survey guidance https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html

   Yes

   SUBMITTED DOCUMENTS

   - *613636_Dighton_MassDOT_NLEB_Report.pdf https://ipac.ecosphere.fws.gov/project/F5DXROQB4ZGEJI63KWTZI2K5BA/projectDocuments/169728652*

10. Did the P/A surveys detect Indiana bats, NLEBs, or TCBs?

    Note: If Indiana bats, NLEBs, or TCBs are detected, the action area is considered **documented habitat.**

    No

11. Did the local Service Field Office verify that this P/A survey can be used to determine Indiana bat, NLEB, and TCB are **not likely to be present** within the suitable summer habitat located within your project area?

    Yes

12. Will the project include **bridge** removal, replacement, and/or alteration activities?

    Yes

13. Has a Bridge Bat Assessment been conducted **within the last 24 months** to determine if the bridge is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

    Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

    SUBMITTED DOCUMENTS

    - *613636_Dighton_MassDOT_NLEB_Report.pdf https://ipac.ecosphere.fws.gov/project/F5DXROQB4ZGEJI63KWTZI2K5BA/projectDocuments/169728652*

14. Please select one of the following results of the Bridge Bat Assessment:

    c) *Indicates the **absence** of Indiana bats, NLEBs, or TCBs roosting in/under the bridge (no bats, guano, etc.)?*

15. Does the project include **culvert** removal, replacement, and/or alteration activities?

    No

16. Does the project include **structure** removal, replacement, and/or alteration activities?

    No

17. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

    Automatically answered
    Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

   Yes

2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

   No

3. Please enter the date of the bridge assessment.

   5/21/2024

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on July 21, 2025. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Massachusetts Department of Transportation
Name: Emily Puglisi
Address: 10 Park Plaza
City: Boston
State: MA
Zip: 02116
Email emily.a.puglisi@dot.state.ma.us
Phone: 6178964424

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Appendix A. Verification Form (updated January 2025)

Federal Highway Administration (FHWA) or the applicable state Department of Transportation (DOT) shall submit a signed version of this completed form, together with any project plans, maps, supporting analyses, etc., to NOAA's National Marine Fisheries Service (NMFS), Greater Atlantic Regional Fisheries Office, Protected Resources Division (GARFO PRD) at nmfs.gar.esa.section7@noaa.gov with "FHWA GARFO NLAA Program: [Project Title or Number]" in the subject line. **Note:** project design contractors and/or consultants may assist in preparing the form, but only FHWA/DOT staff shall sign off on it on the final page.

Project Activity Type (check all that apply to the entire action):

- [x] 1. Bridge repair, demolition, or replacement project
- [ ] 2. Culvert repair or replacement project
- [ ] 3. Dock, pier, or waterway access project (includes construction, demolition, and repairs)
- [ ] 4. Slope stabilization project

Transportation Project Information

Name of Project:	Pleasant Street Bridge Replacement Project		
Reinitiation (Yes/No):	No		
State DOT/Program:	MassDOT - Highway Division		
DOT ID Code:	613636		
Contact Person:	David Paulson		
Phone:	857-262-3378	Email:	david.j.paulson@dot.state.ma.us
Project Latitude (e.g., 42.625884):		41.809590	
Project Longitude (e.g., -70.646114):		-71.119690	
Maximum Water Depth (m)		2.0	
Anticipated Project Start Date:	December 2026	Anticipated Project End Date:	June 2031
City/Town:	Dighton, MA	Water body:	Muddy Cove Brook
Project/Action Description and Purpose:	The Pleasant Street Bridge Replacement Project proposes to replace the existing bridge structure that carries Pleasant Street over Muddy Cove Brook in Dighton. The existing structure was constructed in 1912, and shows signs of significant deterioration. The Project will replace both bridge abutments and superstructure. The replacement structure will consist of a single span structure with a square span of 23.3 feet, and out-to-out width of 40 feet and a hydraulic opening of 244 square feet. The proposed structure will be 1 foot higher to provide additional clearance and improve stream flow. The widened bridge deck will also allow for construction of a concrete sidewalk along the eastern side of the bridge, along with modernized railings. The purpose of the Project is to provide safe vehicular travel along the Pleasant Street corridor but replacing the aging structure, and provide opportunities for future pedestrian and bicycle improvements. Work within Atlantic sturgeon habitat is limited to installation of dewatering structures, excavation to replace bridge abutments and installation of modified rock fill. Pile-driving is proposed to install temporary metal sheeting as water control devices around both bridge abutments. In order to minimize impacts associated with underwater noise, the contractor will be required to use "Soft-start" techniques to allow animals an opportunity to leave the project vicinity. The sheet piling will be installed using impact pile installation. Pile driving will commence with an initial set of three strikes by the hammer at 40% energy, followed by a one minute wait period, then two subsequent three-strike sets at 40% energy, with one-minute waiting periods, before initiating continuous impact driving. This method is the "Soft-start" method approved under the Section 7 Consultation Project Design Criteria for the protection of Atlantic Sturgeon. This method has been incorporated into the Project Special Provisions. 34 additional 12 inch steel H piles are proposed for the new bridge abutments. These locations are currently above MHW as they are being placed in the same locations of the existing piles under the existing		

ESA-listed species and/or critical habitats in the action area (Check all that apply)

☑	Atlantic sturgeon (all DPSs)	☐	Kemp's ridley sea turtle
☐	Atlantic sturgeon critical habitat Indicate which DPS (GOM, NYB, Chesapeake Bay DPSs): Select DPS	☐	Loggerhead sea turtle (Northwest Atlantic DPS)
☐	Shortnose sturgeon	☐	Leatherback sea turtle
☐	Atlantic salmon (GOM DPS)	☐	North Atlantic right whale
☐	Atlantic salmon critical habitat (GOM DPS)	☐	North Atlantic right whale critical habitat
☐	Green sea turtle (North Atlantic DPS)	☐	Fin whale

* Please consult GARFO PRD's ESA Section 7 Mapper for ESA-listed species and critical habitat information for your action area at: https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater.

The following stressors are applicable to the action:

- ■ Underwater Noise
- ■ Impingement/Entrainment and Entanglement
- ■ Water Quality/Turbidity
- ■ Habitat Alteration
- ☐ Vessel Traffic

Impacts Table

Habitat Alteration		
	Permanent (acres)	Temporary (acres)
Sand (saline)	0.00	0.00
Silt/Mud/Clay (saline)	0.00	0.00
Hard bottom (saline)	0.02	0.01
Submerged Aquatic Vegetation (SAV) (saline)	0.00	0.00
Sand (freshwater)	0.00	0.00
Silt/Mud/Clay (freshwater)	0.00	0.00
Hard bottom (freshwater)	0.00	0.00
Submerged Aquatic Vegetation (SAV) (freshwater)	0.00	0.00
Total amount of habitat alteration	0.02	0.01
In-water Construction Impacts		
	Amount in meters	
Width of water body in action area (m)	7.1	
Stressor category that extends furthest distance into water body (e.g.; underwater noise, turbidity plume)	Underwater noise	
Maximum extent of stressor into the water body (m)	4,641.0	

Project Design Criteria (PDC) Checklist
FHWA/DOT shall incorporate all general PDCs and all applicable PDCs in the appropriate stressor categories. For any PDCs that are not incorporated, additional justification is required for a project to be eligible for the NLAA Program. FHWA/DOT shall check the corresponding box for each PDC that is, or will be, incorporated into the project or indicate if not applicable.

GENERAL PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	1.	Ensure all operators, employees, and contractors are aware of all FHWA environmental commitments, including these PDC, when working in areas where ESA-listed species may be present or in critical habitat.
☑		2.	No portion of the proposed action will individually or cumulatively have an adverse effect on ESA-listed species or critical habitat.
☐	☑	3.	No portion of the proposed action that may affect the GOM DPS of Atlantic salmon will occur in the tidally influenced portion of rivers/streams where their presence is possible from April 10 through November 7. The range of the GOM DPS only occurs in Maine. **Note**: If the project will occur within the geographic range of the GOM DPS Atlantic salmon but their presence is not expected following the best available commercial scientific data, the work window does not need to be applied. Please attach best available information (i.e. local fisheries biologist correspondence).
☐	☑	4.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as spawning grounds as follows: i. Gulf of Maine: Apr 1-Aug 31 ii. Southern New England/New York Bight: Mar 15-Aug 31 iii. Chesapeake Bay: Mar 15-Jul 1 and Sep 15-Nov 1 **Note**: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval.
☐	☑	5.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as overwintering grounds where dense aggregations are known to occur as follows: i. Gulf of Maine: Oct 15-Apr 30 ii. Southern New England/New York Bight: Nov 1-Mar 15 iii. Chesapeake Bay: Nov 1-Mar 15 **Note**: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval.
☐	☑	6.	Within designated critical habitat for Atlantic sturgeon, no work will affect hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand) (PBF 1).
☑		7.	Work will result in no or only temporary/short-term changes in water temperature, water flow, salinity, or dissolved oxygen levels.

Yes	N/A	PDC #	PDC Description
☑		8.	If ESA-listed species are (a) likely to pass through the action area at the time of year when project activities occur; and/or (b) the project will create an obstruction to passage when in-water work is completed, then a zone of passage (~50% of water body) with appropriate habitat for ESA-listed species (e.g., depth, water velocity, etc.) must be maintained (i.e., physical or biological stressors such as turbidity and sound pressure must not create barrier to passage).
☑		9.	The project will not adversely impact any submerged aquatic vegetation (SAV) or oyster reefs.
☑		10.	No blasting or use of explosives will occur.
☑		11.	No in-water work on large dams or tide gates (small dam and tide gate repairs may be permitted with prior review and approval from NMFS).

UNDERWATER NOISE PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	12.	If pile driving is occurring during a time of year when ESA-listed species may be present, and the anticipated noise is above the behavioral noise threshold, a "soft start" is required to allow animals an opportunity to leave the project vicinity before sound pressure levels increase. *In addition to using a soft start at the beginning of the work day for pile driving, one must also be used at any time following cessation of pile driving for a period of 30 minutes or longer.* <u>For impact pile driving</u>: pile driving will commence with an initial set of three strikes by the hammer at 40% energy, followed by a one minute wait period, then two subsequent three-strike sets at 40% energy, with one-minute waiting periods, before initiating continuous impact driving. <u>For vibratory pile installation</u>: pile driving will be initiated for 15 seconds at reduced energy followed by a one-minute waiting period. This sequence of 15 seconds of reduced energy driving, one-minute waiting period will be repeated two additional times, followed immediately by pile-driving at full rate and energy.

Yes	N/A	PDC #	PDC Description
☐	☐	13.	All underwater noise is below the injury thresholds of ESA-listed species in the action area. Attach your calculations to this verification form supporting this.
☑	☐	14.	Any new pile-supported structure must involve the installation of no more than 50 piles (below MHW).

Information for Pile Driving:
If your project includes **pile driving of any kind**, please attach your calculation to this verification form to verify that it fits within the scope of the behavioral/injury threshold analysis for ESA-listed species in the action area. The NMFS Office of Protected Resources Acoustic Calculator is available as one source, should you not have other information:
https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-effects-analysis-acoustics-greater-atlantic-region

Pile material (e.g., steel pipe, concrete)	Pile diameter/ width (in)	Number of piles	Installation method (e.g., impact hammer, vibratory start and then impact hammer to depth, drilling)
Steel sheeting	60	36	Impact hammer
Steel H-piles	12	34	Pre-drilled, then Impact hammer

IMPINGEMENT/ENTRAINMENT AND ENTANGLEMENT PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	15.	If excavating or dredging, only mechanical buckets, hydraulic cutterheads, or low volume hopper dredges (e.g., CURRITUCK, ≤300 cubic yard maximum bin capacity) may be used. **Note**: We consider excavating a smaller scale form of mechanical dredging.
☑	☐	16.	No new excavation or dredging in Atlantic sturgeon or salmon critical habitat (excavation in a prior construction footprint or maintenance dredging is permitted, but still must meet all other PDCs). New excavation or dredging outside Atlantic sturgeon or salmon critical habitat is limited to one-time events (e.g., burying a cable or utility line) and minor (≤2 acres) expansions of areas already subject to prior excavation or maintenance dredging. Locating a replacement bridge within 250 feet (centerline to centerline) of an existing bridge and excavation of sediment around bridge piers are considered work in a previous construction footprint. **Note**: We consider excavating a smaller scale form of mechanical dredging.

Yes	N/A	PDC #	PDC Description
☑	☐	17.	Temporary intakes related to construction are prohibited in sturgeon and salmon spawning, rearing, or overwintering habitat during the time of year windows identified in General PDCs 3-5. If utilized outside those areas and times of year and in an area with anticipated sturgeon and salmon presence, temporary intakes must be equipped with 2-millimeter wedge wire mesh screening and must not have greater than 0.5 feet per second intake velocities, to prevent impingement or entrainment of juvenile and early life stages of these species.
☑	☐	18.	Work behind cofferdams, turbidity curtains, or other instruments that prevent access of animals to the project area is required when ESA-listed species are likely to be present (if presence is limited to rare, transient individuals, access control measures are not necessary). Once constructed, work inside a cofferdam at any time of year may be permitted with NMFS approval, provided the cofferdam is installed/removed outside the time-restricted period.
☑	☐	19.	No new permanent surface water withdrawal, water intakes, or water diversions.
☑	☐	20.	Turbidity control measures, including cofferdams, must be designed to not entangle or entrap ESA-listed species.
☐	☑	21.	Any in-water lines, ropes, or chains must be made of materials and installed in a manner to minimize or avoid the risk of entanglement by using thick, heavy, and taut lines that do not loop or entangle. Lines can be enclosed in a rigid sleeve.

WATER QUALITY/TURBIDITY PDCs			
Yes	N/A	PDC #	PDC Description
☐	☑	22.	In-water offshore disposal may only occur at designated disposal sites that have already been the subject of ESA section 7 consultation with NMFS and where a valid consultation is in place.
☐	☑	23.	Any temporary discharges must meet state water quality standards (e.g., no discharges of substances in concentrations that may cause acute or chronic adverse reactions, as defined by EPA water quality standards criteria).
☐	☑	24.	Only repair, upgrades, relocations, and improvements of existing discharge pipes or replacement in-kind are allowed; no new construction of untreated discharges.
☑	☐	25.	Work behind cofferdams, turbidity curtains, or other instruments to control turbidity is required when operationally feasible and ESA-listed species are likely to be present (if presence is limited to rare, transient individuals, turbidity control methods are not necessary).

HABITAT ALTERATION PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	26.	Minimize all new waterward encroachment and permanent fill.
☐	☑	27.	In Atlantic salmon critical habitat, stream simulation design with a minimum span of 1.2 bankfull width will be used in areas with minimal tidal influence. In tidal areas, a design that allows for unimpeded flow will be used (no delay in water entering or exiting the area upstream of the crossing).
☐	☑	28.	In Atlantic salmon critical habitat, no culvert end extensions, invert line culvert rehabilitation, or slipline culvert rehabilitation may occur.

VESSEL TRAFFIC PDCs			
Yes	N/A	PDC #	PDC Description
☐	☑	29.	Maintain project (i.e., construction) vessels operating within the action area to speed limits below 10 knots and dredge vessels to speeds of 4 knots maximum, while dredging.
☐	☑	30.	Maintain a 1,500-foot buffer between project (i.e., construction) vessels and ESA-listed whales and a 300-foot buffer between project vessels and sea turtles. This also applies to dredge vessels.
☐	☑	31.	The number of project (construction) vessels must be limited to the greatest extent possible, as appropriate to size and scale of project.
☐	☑	32.	The project must not result in the permanent net increase of commercial vessels.

Justification for NLAA Determination if not Incorporating All PDC
If the project is not in compliance with all of the general and stressor-based PDCs, but you can provide justification and/or special conditions to demonstrate why the project still meets the NLAA determination and is consistent with the aggregate effects considered in the programmatic consultation, you may still certify your project through the NLAA program using this verification form. Please identify which PDCs your project does not meet (e.g., PDC 9, PDC 15, PDC 22, etc.) and provide your rationale and justification for why the project is still eligible for the verification form. Project modifications must not result in different effects not already considered.

To demonstrate that the project is still NLAA, you must explain why the effects on ESA-listed species or critical habitat are **insignificant** (i.e., too small to be meaningfully measured or detected) or **discountable** (i.e., extremely unlikely to occur). **Please use this language in your justification.**

PDC#	Justification
13	Work activity, particularly metal sheet installation, is expected to occur during winter months when Atlantic Sturgeon are not present in the area. Additional work such as bridge pile installation that is conducted during active season for the Atlantic Sturgeon will only be conducted for up to 8 hours a day, providing a temporal zone of passage for wildlife. A "soft start" technique will be employed to provide species a chance to leave the area before impacts begin. To be exposed to potentially injurious levels of noise during hammering of the piles, a sturgeon would need to be within 13.6 meters of the pile being driven for an instant, or within 85.4 meters for a prolonged time period. This is extremely unlikely to occur because it is expected that sturgeon would modify their behavior quickly after being exposed to noise above behavioral thresholds within 4,641 meters and move away from the area before injury levels are reached. Given that the time to drive the piles will be short and the species that can potentially be present

FHWA/DOT Verification of Determination (To be filled out by FHWA/DOT staff only)
By submitting this Verification Form, FHWA, or the state DOT as FHWA's designated non-federal representative, indicates that they determined that the proposed activity described above is not likely to adversely affect (NLAA) ESA-listed species or designated critical habitat under NMFS jurisdiction in accordance with the Program, and all effects (direct, indirect, interrelated, and interdependent) are either insignificant (so small they cannot meaningfully be measured, detected, or evaluated) or discountable (extremely unlikely to occur).

☐	In accordance with the FHWA GARFO NLAA Program, we have determined that the action complies with all applicable PDCs and is not likely to adversely affect listed species.
☑	In accordance with the FHWA GARFO NLAA Program, we have determined that the action is not likely to adversely affect listed species per the justifications and/or special conditions provided above.

FHWA/DOT Signature:	Date:
David Paulson Digitally signed by David Paulson Date: 2026.01.07 10:50:13 -05'00'	01/07/2026

By providing your determination and signature, you are certifying that to the best of your knowledge the information provided in this form is accurate and based upon the best available scientific information. This form must be filled out and signed by FHWA or state DOT staff, as an officially designated non-federal representative.

GARFO PRD Concurrence (To be filled out by GARFO PRD)
After receiving the Verification Form, GARFO PRD will contact FHWA/DOT with any concerns and indicate whether GARFO PRD concurs with FHWA/DOT's determination.

☐	In accordance with the FHWA GARFO NLAA Program, GARFO PRD concurs with FHWA/DOT's determination that the action complies with all applicable PDCs and is not likely to adversely affect listed species or critical habitat.
☑	In accordance with the FHWA GARFO NLAA Program, GARFO PRD concurs with FHWA/DOT's determination that the action is not likely to adversely affect listed species or critical habitat per the justifications and/or special conditions provided above.
☐	GARFO PRD does not concur with FHWA/DOT's determination that the action complies with the applicable PDCs (with or without justifications), and recommends an individual Section 7 consultation to be completed independent from the FHWA GARFO NLAA Program.

GARFO PRD Signature:	Date:
ROOSEVELT.MESA 2026.01.07 15:10:52 -05'00'	01/07/2026

NOAA Fisheries Greater Atlantic Regional Fisheries Office Essential Fish Habitat (EFH) Assessment & Fish and Wildlife Coordination Act (FWCA) Consultation Worksheet

August 2021 rev.

Authorities

The Magnuson Stevens Fishery Conservation and Management Act (MSA) requires federal agencies to consult with NOAA Fisheries on any action or proposed action authorized, funded, or undertaken by such agency that may adversely affect essential fish habitat (EFH) identified under the MSA. This process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in the consultation process.

The Fish and Wildlife Coordination Act (FWCA) requires that all federal agencies consult with NOAA Fisheries when proposed actions might result in modifications to a natural stream or body of water. The FWCA also requires that federal agencies consider the effects that these projects would have on fish and wildlife and must also provide for improvement of these resources. Under the FWCA, we work to protect, conserve and enhance species and habitats for a wide range of aquatic resources such as shellfish, diadromous species, and other commercially and recreationally important species that are not federally managed and do not have designated EFH.

It is important to note that these consultations take place between NOAA Fisheries and federal action agencies. **As a result, EFH assessments, including this worksheet, must be provided to us by the federal agency, not by permit applicants or consultants.**

Use of the Worksheet

This worksheet can serve as an EFH assessment for **Abbreviated EFH Consultations**, and as a means to provide information on potential effects to other NOAA trust resources considered under the FWCA. An abbreviated consultation allows us to determine quickly whether, and to what degree, a federal action may adversely affect EFH. Abbreviated consultation procedures can be used when federal actions do not have the potential to cause substantial adverse effects on EFH and when adverse effects could be alleviated through minor modifications.

The intent of the EFH worksheet is to provide a guide for determining the information needed to fully assess the effects of a proposed action on EFH. In addition, the worksheet may be used as a tool to assist you in developing a more comprehensive EFH assessment for larger projects that may have more substantial adverse effects to EFH. However, for large, complex projects that have the potential for significant adverse effects, an **Expanded EFH Consultation** may be warranted and the use of this worksheet alone is not appropriate as your EFH assessment.

An **adverse effect** is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

Consultation under the MSA is not required if there is no adverse effect on EFH or if no EFH has been designated in the project area. However, because the definition of "adverse effect" is very broad, most in-water work will result in some level of adverse effect requiring consultation with us, even if the impact is temporary or the overall result of the project is habitat restoration or enhancement. It is important to remember that an adverse effect determination is a trigger to consult with us. It does not mean that a project cannot proceed as proposed, or that project modifications are necessary. An adverse effect determination under the EFH provisions of the MSA simply means that the effects of the proposed action on EFH must be evaluated to determine if there are ways to avoid, minimize, or offset adverse effects. Additional details on EFH consultations, tools, and resources, including frequently asked questions can be found on our website.

Instructions

This worksheet should be used as your EFH assessment for **Abbreviated EFH Consultations** or as a guide to develop your EFH assessment. It is not appropriate to use this worksheet as your EFH assessment for large, complex projects, or those requiring an Expanded EFH Consultation.

When completed fully and with sufficient information to clearly describe the activities proposed, habitats affected, and project impacts, as well as the measures taken to avoid, minimize or offset any unavoidable adverse effects, this worksheet provides us with required components of an EFH assessment including:

1. A description of the proposed action.
2. An analysis of the potential adverse effects on EFH and the federally managed species.
3. The federal agency's conclusions regarding the effects of the action on EFH.
4. Proposed mitigation, if applicable.

When completing this worksheet and submitting information to us, it is important to ensure that sufficient information is provided to clearly describe the proposed project and the activities proposed. At a minimum, this should include the public notice (if applicable) or project application and project plans showing:

- location map of the project site with area of impact.
- existing and proposed conditions.
- all in-water work and the location of all proposed structures and/or fill.
- all waters of the U.S. on the project site with mean low water (MLW), mean high water (MHW), high tide line (HTL), and water depths clearly marked.
- Habitat Areas of Particular Concern (HAPCs).
- sensitive habitats mapped, including special aquatic sites (submerged aquatic vegetation, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), hard bottom or natural rocky habitat areas, and shellfish beds.
- site photographs, if available.

Your analysis of effects **should focus on impacts that reduce the quality and/or quantity of the habitat or result in conversion to a different habitat type** for all life stages of species with designated EFH within the action area. Simply stating that fish will move away or that the project

will only affect a small percentage of the overall population is not a sufficient analysis of the effects of an action on EFH. Also, since the intent of the EFH consultation is to evaluate the direct, indirect, individual and cumulative effects of a particular federal action on EFH and to identify options to avoid, minimize or offset the adverse effects of that action, is it not appropriate to conclude that an impact is minimal just because the area affected is a small percentage of the total area of EFH designated. The focus of the consultation is to reduce impacts resulting from the activities evaluated in the assessment. Similarly, a large area of distribution or range of the fish species is also not appropriate rationale for concluding the impacts of a particular project are minimal.

Use the information on the our EFH consultation website and NOAA's EFH Mapper to complete this worksheet. The mapper is a useful tool for viewing the spatial distribution of designated EFH and HAPCs. Because summer flounder HAPC (defined as: " all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH") does not have region-wide mapping, local sources and on-site surveys may be needed to identify submerged aquatic vegetation beds within the project area. The full designations for each species may be viewed as PDF links provided for each species within the Mapper, or via our website links to the New England Fishery Management Councils Omnibus Habitat Amendment 2 (Omnibus EFH Amendment), the Mid-Atlantic Fishery Management Councils FMPs (MAMFC - Fish Habitat), or the Highly Migratory Species website. Additional information on species specific life histories can be found in the EFH source documents accessible through the Habitat and Ecosystem Services Division website. This information can be useful in evaluating the effects of a proposed action. Habitat and Ecosystem Services Division (HESD) staff have also developed a technical memorandum *Impacts to Marine Fisheries Habitat from Non-fishing Activities in the Northeastern United States*, NOAA Technical Memorandum NMFS-NE-209 to assist in evaluating the effects of non-fishing activities on EFH. If you have questions, please contact the HESD staff member in your area to assist you.

Federal agencies or their non-federal designated lead agency should email the completed worksheet and necessary attachments to the HESD New England (ME, NH, MA, CT, RI) or Mid- Atlantic (NY, NJ, PA, DE, MD, VA) Branch Chief and the regional biologist listed on the Contact Regional Office Staff section on our EFH consultation website and listed below.

We will provide our EFH conservation recommendations under the MSA, and recommendations under the FWCA, as appropriate, within 30 days of receipt of a **complete** EFH assessment for an abbreviated consultation. Please ensure that the EFH worksheet is completed in full and includes detail to minimize delays in completing the consultation. If we are unable to assess potential impacts based on the information provided, we may request additional information necessary to assess the effects of the proposed action on our trust resources before we can begin a consultation. If the worksheet is not completely filled out, it may be returned to you for completion. **The EFH consultation and our response clock does not begin until we have sufficient information upon which to consult**.

If this worksheet is not used, you should include all the information required to complete this worksheet in your EFH assessment. The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. You may need to prepare a more detailed EFH assessment for more substantial or complex projects to fully characterize the effects of the project and the avoidance and minimization of impacts to EFH. The format of the EFH worksheet may not be sufficient to incorporate the extent of detail required for large-scale projects, and a separate EFH assessment may be required.

Regardless of the format, you should include an analysis as outlined in this worksheet for an expanded EFH assessment, along with any additional necessary information including:

- the results of on-site inspections to evaluate habitat and site-specific effects.
- the views of recognized experts on habitat or the species that may be affected.
- a review of pertinent literature and related information.
- an analysis of alternatives that could avoid or minimize adverse effects on EFH.

For these larger scale projects, interagency coordination meetings should be scheduled to discuss the contents of the EFH consultation and the site-specific information that may be needed in order to initiate the consultation.

Please contact our Greater Atlantic Regional Fisheries Office, Protected Resources Division regarding potential impacts to marine mammals or threatened and endangered species and the appropriate consultation procedures.

HESD Contacts*

New England - ME, NH, MA, RI, CT

Chris Boelke, Branch Chief	christopher.boelke@noaa.gov
Mike Johnson - ME, NH	mike.r.johnson@noaa.gov
Kaitlyn Shaw - ME, NH, MA	kaitlyn.shaw@noaa.gov
Sabrina Pereira -RI, CT	sabrina.pereira@noaa

Mid-Atlantic - NY, NJ, PA, MD, VA

Karen Greene, Branch Chief	karen.greene@noaa.gov
Jessie Murray - NY, Northern NJ (Monmouth Co. and north)	jessie.murray@noaa.gov
Keith Hanson - NJ (Ocean Co. and south), DE and PA, Mid-Altantic wind	keith.hanson@noaa.gov
Maggie Sager - NJ (Ocean Co. and south), DE and PA	lauren.m.sager@noaa.gov
Jonathan Watson - MD, DC	jonathan.watson@noaa.gov
David O'Brien - VA	david.l.obrien@noaa.gov

Ecosystem Management (Wind/Aquaculture)

Peter Burns, Branch Chief	peter.burns@noaa.gov
Alison Verkade (NE Wind)	alison.verkade@noaa.gov
Susan Tuxbury (wind coordinator)	susan.tuxbury@noaa.gov

***Please check for the most current staffing list on our contact us page prior to submitting your assessment.**

EFH Assessment Worksheet rev. August 2021

Please read and follow all of the directions provided when filling out this form.

1. General Project Information

Date Submitted: 09/30/2025

Project/Application Number: 613636

Project Name: Pleasant Street Bridge Replacement Project

Project Sponsor/Applicant: Town of Dighton

Federal Action Agency (or state agency if the federal agency has provided written notice delegating the authority[1]): Federal Highway Administration

Fast-41: Yes ☐ No ☑

Action Agency Contact Name: David Paulson

Contact Phone: 857-262-3378 Contact Email: david.j.paulson@dot.state.ma

Address, City/Town, State:

MassDOT Environmental
10 Park Plaza, Suite 7130
Boston, MA 02116

2. Project Description

[2]Latitude: 41.809608 Longitude: -71.119684

Body of Water (e.g., HUC 6 name): Muddy Cove Brook

Project Purpose:

The purpose of the Project is to replace the damaged, deteriorating structure that carries Pleasant Street over Muddy Cove Brook to ensure safe travel conditions.

Project Description:

The Pleasant Street Bridge Replacement Project proposes to replace the existing structure that carries Pleasant Street over Muddy Cove Brook. The existing structure us single-span with a 23-foot span and 36-foot width which will be replaced with a single span 23-foot span 40-foot wide structure. The superstructure and southern abutment are proposed to be replaced. An ADA-compliant concrete sidewalk is proposed along the eastern side of the roadway. Adjacent areas will be graded to meet existing grades. Modified rock fill is proposed within the stream channel to provide scour protection.

Anticipated Duration of In-Water Work including planned Start/End Dates and any seasonal restrictions proposed to be included in the schedule:

Duration 30-60 days

[1] A federal agency may designate a non-Federal representative to conduct an EFH consultation by giving written notice of such designation to NMFS. If a non-federal representative is used, the Federal action agency remains ultimately responsible for compliance with sections 305(b)(2) and 305(b)(4)(B) of the Magnuson-Stevens Act. [2] Provide the decimal, or the degrees, minutes, seconds values for latitude and longitude using the World Geodetic System 1984 (WGS84) and negative degree values where applicable.

3. Site Description

EFH includes the biological, chemical, and physical components of the habitat. This includes the substrate and associated biological resources (e.g., benthic organisms, submerged aquatic vegetation, shellfish beds, salt marsh wetlands), the water column, and prey species.

Is the project in designated EFH[3]? ☑ Yes ☐ No

Is the project in designated HAPC? ☑ Yes ☐ No

Does the project contain any Special Aquatic Sites[4]? ☐ Yes ☑ No

Is this coordination under FWCA only? ☐ Yes ☑ No

Total area of impact to EFH (indicate sq ft or acres): 1,501 sf

Total area of impact to HAPC (indicate sq ft or acres): 1,501 sf

Current range of water depths at MLW	Salinity range (PPT):	Water temperature range (°F):
1.47 - 3.05	19.1-25.3	71.8-79

[3]Use the tables in Sections 5 and 6 to list species within designated EFH or the type of designated HAPC present. See the worksheet instructions to find out where EFH and HAPC designations can be found. [4] Special aquatic sites (SAS) are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. They include sanctuaries and refuges, wetlands, mudflats, vegetated shallows, coral reefs, and riffle and pool complexes (40 CFR Subpart E). If the project area contains SAS (i.e. sanctuaries and refuges, wetlands, mudflats, vegetated shallows/SAV, coral reefs, and/or riffle and pool complexes, describe the SAS, species or habitat present, and area of impact.

4. Habitat Types

In the table below, select the location and type(s) for each habitat your project overlaps. For each habitat type selected, indicate the total area of expected impacts, then what portion of the total is expected to be temporary (less than 12 months) and what portion is expected to be permanent (habitat conversion), and if the portion of temporary impacts will be actively restored to pre- construction conditions by the project proponent or not. A project may overlap with multiple habitat types.

Habitat Location	Habitat Type	Total impacts ($lf/ft^2/ft^3$)	Temporary impacts ($lf/ft^2/ft^3$)	Permanent impacts ($lf/ft^2/ft^3$)	Restored to pre-existing conditions?*
Estuarine	Substrate (cobble/gravel)3	545	545		Yes
Estuarine	Shore (rock)	941		941	Yes
Select one	Select One				Select one
Select one	Select One				Select one
Select one	Select One				Select one
Select one	Select One				Select one
Select one	Select One				Select one
Select one	Select One				Select one

*Restored to pre-existing conditions means that as part of the project, the temporary impacts will be actively restored,such as restoring the project elevations to pre-existing conditions and replanting. It does not include natural restoration or compensatory mitigation.

Submerged Aquatic Vegetation (SAV) Present?:

Yes: ☐ No: ☑

If the project area contains SAV, or has historically contained SAV, list SAV species and provide survey results including plans showing its location, years present and densities if available. Refer to Section 12 below to determine if local SAV mapping resources are available for your project area.

Sediment Characteristics:

The level of detail required is dependent on your project – e.g., a grain size analysis may be necessary for dredging. In addition, if the project area contains rocky/hard bottom habitat [6](pebble, cobble, boulder, bedrock outcrop/ledge) identified as Rocky (coral/rock), Substrate (cobble/gravel), or Substrate (rock) above, describe the composition of the habitat using the following table.

Substrate Type* (grain size)	Present at Site? (Y/N)	Approximate Percentage of Total Substrate on Site
Silt/Mud (<0.063mm)	Yes	6.5
Sand (0.063-2mm)	Yes	57.6
Rocky: Pebble/Gravel /Cobble(2-256mm)**	Yes	35.9
Rocky: Boulder (256-4096mm)**	Yes	Not Measured*
Rocky: Coral	No	
Bedrock**	No	

[6]The type(s) of rocky habitat will help you determine if the area is cod HAPC.

* Grain sizes are based on Wentworth grain size classification scale for granules, pebbles, cobbles, and boulders.

** Sediment samples with a content of 10% or more of pebble-gravel-cobble and/or boulder in the top layer (6-12 inches) should be delineated and material with epifauna/macroalgae should be differentiated from bare pebble-gravel-cobble and boulder.

If no grain size analysis has been conducted, please provide a general description of the composition of the sediment. If available please attach images of the substrate.

Results from sediment sampling in attachment 7.

Diadromous Fish (migratory or spawning habitat- identify species under Section 10 below):

Yes: ☐ No: ☑

5. EFH and HAPC Designations

Within the Greater Atlantic Region, EFH has been designated by the New England, Mid-Atlantic, and South Atlantic Fisheries Management Councils and NOAA Fisheries. Use the EFH mapper to determine if EFH may be present in the project area and enter all species and life stages that have designated EFH. Optionally, you may review the EFH text descriptions linked to each species in the EFH mapper and use them to determine if the described habitat is present at your project site. If the habitat characteristics described in the text descriptions do not exist at your site, you may be able to exclude some species or life stages from additional consideration. For example, the water depths at your site are shallower that those described in the text description for a particular species or life stage. We recommend this for larger projects to help you determine what your impacts are.

Species Present	EFH is designated/mapped for:				What is the source of the EFH information included?
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/ spawning adults	
Atlantic butterfish	✔	✔	✔	✔	EFH Mapper c
Atlantic herring		✔	✔	✔	EFH Mapper c
Atlantic mackerel	✔	✔	✔	✔	EFH Mapper c
Black sea bass			✔	✔	EFH Mapper c
bluefish			✔	✔	EFH Mapper c
little skate			✔	✔	EFH Mapper c
long-finned squid			✔	✔	EFH Mapper c
red hake	✔	✔	✔	✔	EFH Mapper c
scup	✔	✔	✔	✔	EFH Mapper c
summer flounder		✔	✔	✔	EFH Mapper c
windowpane flounder	✔	✔	✔	✔	EFH Mapper c

5. EFH and HAPC Designations

Within the Greater Atlantic Region, EFH has been designated by the New England, Mid-Atlantic, and South Atlantic Fisheries Management Councils and NOAA Fisheries. Use the EFH mapper to determine if EFH may be present in the project area and enter all species and life stages that have designated EFH. Optionally, you may review the EFH text descriptions linked to each species in the EFH mapper and use them to determine if the described habitat is present at your project site. If the habitat characteristics described in the text descriptions do not exist at your site, you may be able to exclude some species or life stages from additional consideration. For example, the water depths at your site are shallower that those described in the text description for a particular species or life stage. We recommend this for larger projects to help you determine what your impacts are.

Species Present	EFH is designated/mapped for:				What is the source of the EFH information included?
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/ spawning adults	
Winter Flounder	☑	☑	☑	☑	EFH Mapper
Winter Skate	☐	☐	☑	☑	EFH Mapper

6. Habitat Areas of Particular Concern (HAPCs)

HAPCs are subsets of EFH that are important for long-term productivity of federally managed species. HAPCs merit special consideration based their ecological function (current or historic), sensitivity to human-induced degradation, stresses from development, and/or rarity of the habitat.While many HAPC designations have geographic boundaries, there are also habitat specific HAPC designations for certain species, see note below. Use the EFH mapper to identify HAPCs within your project area. Select all that apply.

☑	Summer flounder: SAV[7]	☐	Alvin & Atlantis Canyons
☐	Sandbar shark	☐	Baltimore Canyon
☐	Sand Tiger Shark (Delaware Bay)	☐	Bear Seamount
☐	Sand Tiger Shark (Plymouth-Duxbury-Kingston Bay)	☐	Heezen Canyon
☐	Inshore 20m Juvenile Cod[8]	☐	Hudson Canyon
☐	Great South Channel Juvenile Cod	☐	Hydrographer Canyon
☐	Northern Edge Juvenile Cod	☐	Jeffreys & Stellwagen
☐	Lydonia Canyon	☐	Lydonia, Gilbert & Oceanographer Canyons
☐	Norfolk Canyon (Mid-Atlantic)	☐	Norfolk Canyon (New England)
☐	Oceanographer Canyon	☐	Retriever Seamount
☐	Veatch Canyon (Mid-Atlantic)	☐	Toms, Middle Toms & Hendrickson Canyons
☐	Veatch Canyon (New England)	☐	Washington Canyon
☐	Cashes Ledge	☐	Wilmington Canyon
☐	Atlantic Salmon		

[7] Summer flounder HAPC is defined as all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH. In locations where native species have been eliminated from an area, then exotic species are included. Use local information to determine the locations of HAPC.

[8] The purpose of this HAPC is to recognize the importance of inshore areas to juvenile Atlantic cod. The coastal areas of the Gulf of Maine and Southern New England contain structurally complex rocky-bottom habitat that supports a wide variety of emergent epifauna and benthic invertebrates. Although this habitat type is not rare in the coastal Gulf of Maine, it provides two key ecological functions for juvenile cod: protection from predation, and readily available prey. See EFH mapper for links to text descriptions for HAPCs.

7. Activity Details

Select all that apply	Project Type/Category
☐	Agriculture
☐	Aquaculture - List species here:
☐	Bank/shoreline stabilization (e.g., living shoreline, groin, breakwater, bulkhead)
☐	Beach renourishment
☐	Dredging/excavation
☐	Energy development/use e.g., hydropower, oil and gas, pipeline, transmission line, tidal or wave power, wind
☐	Fill
☐	Forestry
☑	Infrastructure/transportation (e.g., culvert construction, bridge repair, highway, port, railroad)
☐	Intake/outfall
☐	Military (e.g., acoustic testing, training exercises)
☐	Mining (e.g., sand, gravel)
☐	Overboard dredged material placement
☐	Piers, ramps, floats, and other structures
☐	Restoration or fish/wildlife enhancement (e.g., fish passage, wetlands, mitigation bank/ILF creation)
☐	Survey (e.g., geotechnical, geophysical, habitat, fisheries)
☐	Water quality (e.g., storm water drainage, NPDES, TMDL, wastewater, sediment remediation)
☐	Other:

8. Effects Evaluation

Select all that apply	Potential Stressors Caused by the Activity	Select all that apply and if temporary[9] or permanent		Habitat alterations caused by the activity
		Temp	Perm	
☑	Underwater noise			
☑	Water quality/turbidity/ contaminant release	☑	☐	Water depth change
☐	Vessel traffic/barge grounding	☑	☐	Tidal flow change
☑	Impingement/entrainment	☑	☐	Fill
☑	Prevent fish passage/spawning	☐	☐	Habitat type conversion
☐	Benthic community disturbance	☐	☐	Other:
☐	Impacts to prey species	☐	☐	Other:

[9] Temporary in this instance means during construction. [10] Entrainment is the voluntary or involuntary movement of aquatic organisms from a water body into a surface diversion or through, under, or around screens and results in the loss of the organisms from the population. Impingement is the involuntary contact and entrapment of aquatic organisms on the surface of intake screens caused when the approach velocity exceeds the swimming capability of the organism.

Details - project impacts and mitigation

Briefly describe how the project would impact each of the habitat types selected above and the amount (i.e., acreage or sf) of each habitat impacted. Include temporary and permanent impact descriptions and direct and indirect impacts. For example, dredging has a direct impact on bottom sediments and associated benthic communities. The turbidity generated can result in a temporary impact to water quality which may have an indirect effect on some species and habitats such as winter flounder eggs, SAV or rocky habitats. The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. Attach supplemental information if necessary.

The Project proposes several temporary impacts, which are proposed to be restored following completion of the work. These include:
Temporary dewatering along the bridge abutments. This will displace water and any fish species in the work area, however dewatering will be limited to bridge abutments, and stream flow will be maintained through the center of the channel.
Installation of dewatering controls will create temporary turbidity within the water column. Installation will be conducted from the roadway to minimize disturbances, and these structures will prevent additional turbidity within the Brook.
Boulders and large stones located within the stream channel will be removed to install the new abutments, along with the existing habitat they create. These stones will be reinstalled following completion of the bridge abutments to replace existing habitat.

What specific measures will be used to avoid and minimize impacts, including project design, turbidity controls, acoustic controls, and time of year restrictions? If impacts cannot be avoided or minimized, why not?

All work will be conducted in dry conditions, using water controls to dewater the work area. Additionally, the limits of the work area have been minimized to the extent feasible. Work will be conducted from the paved surface of Pleasant Street whenever feasible. The Project includes placement of additional modified rock fill along the bridge abutments to provide scour protection.

Is compensatory mitigation proposed? Yes ☐ No ☑

If compensatory mitigation is not proposed, why not? If yes, describe plans for compensatory mitigation (e.g. permittee responsible, mitigation bank, in-lieu fee) and how this will offset impacts to EFH and other aquatic resources. Include a proposed compensatory mitigation and monitoring plan as applicable.

Compensatory mitigation is not proposed because the Project does not propose any permanent removal of habitat within Muddy Cove Brook. All disturbed areas will be restored to pre-construction condition following completion of the work.

9. Effects of Climate Change

Effects of climate change should be included in the EFH assessment if the effects of climate change may amplify or exacerbate the adverse effects of the proposed action on EFH. Use the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP) 8.5/high greenhouse gas emission scenario (IPCC 2014), at a minimum, to evaluate the future effects of climate change on the proposed projections. For sea level rise effects, use the intermediate-high and extreme scenario projections as defined in Sweet et al. (2017). For more information on climate change effects to species and habitats relative to NMFS trust resources, see Guidance for Integrating Climate Change Information in Greater Atlantic Region Habitat Conservation Division Consultation Processes.

1. Could species or habitats be adversely affected by the proposed action due to projected changes in the climate?If yes, please describe how:

No

2. Is the expected lifespan of the action greater than 10 years? If yes, please describe project lifespan:

No

3. Is climate change currently affecting vulnerable species or habitats, and would the effects of a proposed action be amplified by climate change? If yes, please describe how:

No

4. Do the results of the assessment indicate the effects of the action on habitats and species will be amplified by climate change? If yes, please describe how:

No

5. Can adaptive management strategies (AMS) be integrated into the action to avoid or minimize adverse effects of the proposed action as a result of climate? If yes, please describe how:

No

10. Federal Agency Determination

Federal Action Agency's EFH determination (select one)	
☐	There is no adverse effect[7] on EFH or EFH is not designated at the project site. EFH Consultation is not required. This is a FWCA only request.
☑	The adverse effect[7] on EFH is not substantial. This means that the adverse effects are no more than minimal, temporary, or can be alleviated with minor project modifications or conservation recommendations. This is a request for an abbreviated EFH consultation.
☐	The adverse effect[7] on EFH is substantial. This is a request for an expanded EFH consultation. We will provide more detailed information, including an alternatives analysis and NEPA documents, if applicable.

[7] An adverse effect is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

11. Fish and Wildlife Coordination Act

Under the FWCA, federal agencies are required to consult with us if actions that the authorize, fund, or undertake will result in modifications to a natural stream or body of water. Federal agencies are required to consider the effects these modifications may have on fish and wildlife resources, as well as provide for the improvement of those resources. Under this authority, we consider the effects of actions on NOAA-trust resources, such as anadromous fish, shellfish, crustaceans, or their habitats, that are not managed under a federal fisheries management plan. Some examples of other NOAA-trust resources are listed below. Some of these species, including diadromous fishes, serve as prey for a number of federally-managed species and are therefore considered a component of EFH pursuant to the MSA. We will be considering the effects of your project on these species and their habitats as part of the EFH/FWCA consultation process and may make recommendations to avoid, minimize or offset and adverse effects concurrently with our EFH conservation recommendations.

Please contact our Greater Atlantic Regional Fisheries Office, Protected Resources Division regarding potential impacts to marine mammals or species listed under the Endangered Species Act and the appropriate consultation procedures.

Fish and Wildlife Coordination Act Resources

Species known to occur at site (list others that may apply)	Describe habitat impact type (i.e., physical, chemical, or biological disruption of spawning and/or egg development habitat, juvenile nursery and/or adult feeding or migration habitat). Please note, impacts to federally listed species of fish, sea turtles, and marine mammals must be coordinated with the GARFO Protected Resources Division.
alewife	Migratory habitat impacts
American eel	Migratory habitat impacts
American shad	N/A
Atlantic menhaden	N/A
blue crab	N/A
blue mussel	N/A
blueback herring	Migratory habitat impacts
Eastern oyster	N/A
horseshoe crab	N/A
quahog	N/A
soft-shell clams	N/A
striped bass	N/A
other species:	White Perch: Migratory habitat impacts
other species:	
other species:	

12. Useful Links

National Wetland Inventory Maps
EPA's National Estuary Program (NEP)
Northeast Regional Ocean Council (NROC) Data Portal
Mid-Atlantic Regional Council on the Ocean (MARCO) Data Portal

Resources by State

Maine
Maine Office of GIS Data Catalog
Town shellfish information including shellfish conservation area maps
State of Maine Shellfish Sanitation and Management
Eelgrass maps
Casco Bay Estuary Partnership
Maine GIS Stream Habitat Viewer

New Hampshire
NH Statewide GIS Clearinghouse, NH GRANIT
NH Coastal Viewer
State of NH Shellfish Program

Massachusetts
MA DMF Shellfish Sanitation and Management Program
MassGIS Data (Including Eelgrass Maps)
MA DMF Recommended TOY Restrictions Document Massachusetts
Bays National Estuary Program
Buzzards Bay National Estuary Program
Massachusetts Division of Marine Fisheries
Massachusetts Office of Coastal Zone Management

Rhode Island
RI Shellfish and Aquaculture
RI Shellfish Management Plan
RI Eelgrass Maps
Narragansett Bay Estuary Program
Rhode Island Division of Marine Fisheries
Rhode Island Coastal Resources Management Council

Connecticut

CT Bureau of Aquaculture

Natural Shellfish Beds in CT

Eelgrass Maps

Long Island Sound Study

CT GIS Resources

CT DEEP Office of Long Island Sound Programs and Fisheries

CT River Watershed Council

New York

Eelgrass Report

Peconic Estuary Program

NY/NJ Harbor Estuary Program

New York GIS Clearinghouse

New Jersey

Submerged Aquatic Vegetation Mapping

Barnegat Bay Partnership

NJ GeoWeb

NJ DEP Shellfish Maps

Pennsylvania

Delaware River Management Plan

PA DEP Coastal Resources Management Program

PA DEP GIS Mapping Tools

Delaware

Partnership for the Delaware Estuary

Center for Delaware Inland Bays

Delaware FirstMap

Maryland

Submerged Aquatic Vegetation Mapping

MERLIN (Maryland's Environmental Resources and Land Information Network)

Maryland Coastal Atlas

Maryland Coastal Bays Program

Virginia

VMRC Habitat Management Division

Submerged Aquatic Vegetation mapping

Date:	10/24/2025	Job No.:	22.10328.00
To:	David Paulson, MassDOT Environmental		
Cc:	Greg Frazier, MassDOT Project Manager Tom Ferry, Town of Dighton		
From:	Laura Krause, Senior Project Manager Tyler Drew, Scientist		
Subject:	**Pleasant Street Bridge Replacement, Dighton, MA** **Individual EFH Consultation – Supplemental Information**		

The purpose of this memorandum is to support MassDOT's consultation with GARFO HCD for the proposed Pleasant Street Bridge Replacement Project (the Project) proposed at the crossing of Pleasant Street over Muddy Cove Brook in Dighton, MA. This memorandum aims to provide additional Project information to support the Project's Essential Fish Habitat Consultation process.

PROJECT DESCRIPTION

The Project proposes to replace the existing bridge carrying Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts (the Site). The purpose of the Project is to improve safety and transportation infrastructure in eastern Dighton, along the Taunton River. Pleasant Street is classified as a local road that conveys traffic from Taunton to Somerset in eastern Dighton. Muddy Cove Lane is also located within the Project area and is classified as a local road that conveys traffic between Pleasant Street and County Street (Figure 1 – Project Locus). The Project crosses Muddy Cove River, a Tidal Estuary that is tributary to the Taunton River. Within and immediately adjacent to the Project are Tidal Waters of the US, including Salt Marsh. In addition, the entirety of the Project is located below the 100-year coastal flood zone (AE) with a Base Flood Elevation of 14' (NAVD88).

The existing bridge consists of a combination of reinforced concrete tee beams beneath the original roadway, and concrete encased steel girders beneath the original trolly track on the east side. The substructure consists of reinforced concrete abutments, U-wingwalls to the northwest and southeast, and splayed wingwalls to the northeast and southwest. These are supported on piles of unknown specification and depth. The existing structure has a clear span of approximately 28 feet (square span of 23' -4 ¾") , an out-to-out width of 36'-4 1/2", and a curb-to-curb width of 32'-1/2". Over the bridge, there is a hot mix asphalt wearing surface and concrete railing on both sides. The trolley line on the east side is no longer present and is anticipated to have been buried or removed. The bridge is currently posted for 7-ton, 15-ton, and 22-ton weight limits.

According to the routine MassDOT Structures Inspection Field Report dated 2018 and the Weston & Sampson Alternative Analysis Report dated 2019, the overall condition of the superstructure is fair, and the overall condition of the substructure is satisfactory. Hairline cracks with efflorescence and minor spalls are typically found throughout the deck underside. All encased beams have map cracking with varied amounts of efflorescence and the abutments have locations of minor cracking and delamination. Additionally, the wingwalls typically exhibit cracking and abrasion.

The Design Team reviewed the possibility of increasing the clearance of the bridge for personal watercraft use. Due to the existing Pleasant Street roadway profile, the presence of Muddy Cove Lane located immediately southwest of the bridge, and adjacent properties along the Roadway, it was determined that increasing the clearance would require significant changes to the roadway profile of both Muddy Cove Lane and Pleasant Street, as well as extensive right-of-way impacts. For these reasons, it was determined

that increasing the clearance was not feasible as part of the proposed bridge replacements project. Accordingly, the proposed bridge conditions will generally mirror existing conditions for span and clearance to avoid extensive impacts to roadway conditions.

The replacement bridge has been designed in accordance with 2020 AASHTO LRFD Bridge Design Specifications for HL-93 loading. The proposed bridge will have a skewed span of 26 feet (square span of 23' -4 ¾"), the bridge will have an out-to-out width of 40', and hydraulic opening of 244 square feet. The proposed roadway cross section includes two (2) 11-foot travel lanes with a 2-foot shoulder on the east side. The western shoulder will vary from 2 feet to 9 feet to provide adequate sight distance from Muddy Cove Lane. A 6-foot concrete sidewalk is proposed along the eastern side with granite curbing. The proposed cross section at the bridge will be tapered to meet the existing approach roadway conditions. Modified rockfill will be reestablished following bridge replacement along all four quadrants for slope stabilization.

During construction, Pleasant Street will be closed to all vehicular and pedestrian traffic for the duration. Traffic will be detoured from Pleasant Street to Hart Street to County Street (Route 106) to Main Street back to Pine Street, for a detour length of approximately 1.75 miles.

Stormwater infrastructure within the Project limits is classified as "country drainage" and no changes or improvements are proposed due to the limited ROW, topography, and resources adjacent to the Project.

In water work will consist of reestablishing the existing modified rock fill at all four bridge quadrants, as well as installation of cofferdams along the abutments so the bridge abutments can be removed and replaced in the dry. Impacts to Tidal Waters of the US will include 561 sf of temporary impacts and 943 sf of permanent impacts below the High Tide Line. In addition, 98.2 cubic yards of dredging below the Mean High Water Elevation is proposed to excavate to 1-foot below the bridge footings. No Salt Marsh alteration is proposed, and fencing will be installed at the limit of alteration to protect the Salt Marsh during construction.

DESCRIPTION OF WORK WITHIN ESSENTIAL FISH HABITAT

As described above, in-water work is limited to installation of cofferdams for abutment replacement and placement of modified rock fill along all four corners of the bridge abutments. Approximately 561 square feet (sf) of temporary and 943 sf of permanent impact to EFH will occur as a result of the proposed work. Impacts will be mitigated through the use of turbidity and water controls, and by conducting work in dry conditions where feasible.

Installation of modified rock fill is necessary to reinforce the bridge abutments against scour from the ebb and flow of Muddy Cove Brook and the Taunton River. While this work constitutes a permanent impact to EFH, the modified rock fill will be added to previously placed riprap stone that lines the abutments and adjacent seawall.

Work within man-made rocky habitats and areas containing shellfish (based on the Massachusetts GIS Shellfish Suitability Layer) is required in order to complete the bridge replacement and install scour protections. Dewatered areas will be restored following completion of the work, and any rock fill will be added to areas of existing scour protection therefore the existing habitat type will not be altered.

CONSTRUCTION METHODS AND MITIGATION

Pile-driving is only proposed to install temporary metal sheeting as water control devices around both bridge abutments. In order to minimize impacts associated with underwater noise, the contractor will be required to use "Soft-start" techniques to allow animals an opportunity to leave the project vicinity. The

sheet piling will be installed using vibratory pile installation. Pile driving will be initiated for 15 seconds at reduced energy followed by a one-minute waiting period. This sequence of 15 seconds of reduced energy driving, one-minute waiting period will be repeated two additional times, followed immediately by pile-driving at full rate and energy. This method is the "Soft-start" method approved under the Section 7 Consultation Project Design Criteria for the protection of Atlantic Sturgeon. This method has been incorporated into the Project Special Provisions.

Additionally, turbidity curtains will be installed around dewatering areas and around any additional work areas such as the scour protection locations. This will prevent sediment from migrating into the water column while work is under way.

Muddy Cove Brook and the Taunton River are diadromous streams. Flow will be maintained through the center of the work area to avoid impeding fish migration. Any in-water work will be conducted behind turbidity controls.

ADDITIONAL INFORMATION

SEDIMENT SAMPLING

Because the Project requires dredging of sediment from Muddy Cove Brook to complete abutment replacement, sediment samples were collected and a sieve analysis was completed. The results of the sieve analysis are included in Attachment 7.

WINTER AND SUMMER FLOUNDER HAPC

While the Project is located within the mapped HAPC for Summer Flounder, there is no Submerged Aquatic Vegetation present on the Site, therefore HAPC will not be impacted.

OTHER RESOURCE AREAS PRESENT NEAR THE SITE

As can be seen on the NHESP Locus figure and the Preliminary Environmental Figure, areas of Salt Marsh are located to the southeast and northwest of the bridge. This Salt Marsh will not be altered by the Project.

DIADROMOUS FISH PRESENCE

According to Massachusetts GIS Diadromous Fish Migratory Habitat Layer, the following diadromous fish species are known to be present in Muddy Cove Brook and adjacent Taunton River:

- Alewife (*Alosa pseudoharengus*),
- Blueback herring (*Alosa aestivalis*),
- Rainbow smelt (*Osmerus mordax*),
- White perch (*Morone americana*),
- Atlantic tomcod (*Microgadus tomcod*),
- American eel (*Anguilla rostrata*), and
- American Shad (*Alosa sapidissima*)

As previously described, the Project proposes to only dewater those areas necessary for replacement of the bridge abutments. This will allow the continued flow of water through Muddy Cove Brook throughout the construction process. Additionally, a dam located 0.2 miles upstream of the Site creates an impediment to fish migration within Muddy Cove Brook that is not related to the Project.

SUMMARY

The Pleasant Street Bridge Replacement Project aims to replace the aging and outdated structure that carries Pleasant Street over Muddy Cove Brook. Proposed improvements will provide modernized safety

improvements, pedestrian and bicycle accommodations, and additional scour protection for Muddy Cove Brook. This Project will improve the current conditions by reinforcing the adjacent shoreline while using best management practices during construction to prevent additional impacts to the Muddy Cove Brook.

ATTACHMENTS

1. EFH NOAA Species List
2. Table 1 – Species Habitat Presence
3. Figure 1 – Site Locus
4. Figure 3 – NHESP Locus
5. Figure 9 – Preliminary Environmental Figure
6. Photographic Documentation
7. Sieve Analysis of Sediment
8. Resource Area Impact Plan

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

Greater Atlantic Regional Office
Atlantic Highly Migratory Species Management Division

Query Results

Degrees, Minutes, Seconds: Latitude = 41° 48' 34" N, Longitude = 72° 52' 50" W
Decimal Degrees: Latitude = 41.810, Longitude = -71.120

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

***** W A R N I N G *****

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Butterfish	Adult, Eggs, Juvenile, Larvae	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Atlantic Herring	Adult, Juvenile, Larvae	New England	Amendment 3 to the Atlantic Herring FMP

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Mackerel	Adult, Eggs, Juvenile, Larvae	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Black Sea Bass	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Bluefish	Adult, Juvenile	Mid-Atlantic	Bluefish
		Little Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Longfin Inshore Squid	Adult, Juvenile	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Red Hake	Adult, Eggs/Larvae/Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Scup	Adult, Eggs, Juvenile, Larvae	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Summer Flounder	Adult, Juvenile, Larvae	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Windowpane Flounder	Adult, Eggs, Juvenile, Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Flounder	Eggs, Juvenile, Larvae/Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP

Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

Atlantic Salmon

No Atlantic Salmon were identified at the report location.

HAPCs

Link	Data Caveats	HAPC Name	Management Council
		Summer Flounder SAV	Mid-Atlantic Fishery Management Council

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.
****For links to all EFH text descriptions see the complete data inventory: open data inventory -->**

All EFH species have been mapped for the Greater Atlantic region,
Atlantic Highly Migratory Species EFH,
Bigeye Sand Tiger Shark,
Bigeye Sixgill Shark,
Caribbean Sharpnose Shark,
Galapagos Shark,
Narrowtooth Shark,
Sevengill Shark,
Sixgill Shark,
Smooth Hammerhead Shark,
Smalltail Shark

Table 1. Essential Fish Habitat Summary of Species mapped within or adjacent to the Project Area. This information has been compiled from the EFH Source Documents developed by the New England Fishery Management Council in cooperation with the National Marine Fisheries Service. EFH found within the limits of the Project Site for specific species and life stages are designated in **bold.**

Species	Life Stage	Temp.	Salinity	Depth (feet)	Substrate	Typical Habitat
Winter flounder	**Eggs**	<50°F	10 – 30 ppt	Mean low water to 16	Sand, mud, and gravel	**Sub-tidal estuarine and coastal benthic**
	Larvae	<59°F	4-30 ppt	Shoreline to 230	Sand, mud, gravel, tidal wetlands	**Estuarine, coastal, and continental shelf water column**
	Juvenile	<82°F	5 – 33 ppt	0 to 197	Muddy and sandy substrates	**Intertidal zone**
	Adult	<59°F	5 – 33 ppt	0 to 230	Sand, mud, and gravel	**Intertidal zone**
	Spawning			Mean low water to 16		**Sub-tidal estuarine and coastal benthic**
Little Skate (Species does not spawn)	**Juvenile**		>25 ppt	<262	Sand, gravel, and mud	**Intertidal and sub-tidal benthic habitats**
	Adult		>25 ppt	<328	Sand, gravel, and mud	**Intertidal and sub-tidal benthic habitats**
Atlantic Herring	Larvae	<61°F	~32 ppt	164 - 295		Inshore and offshore pelagic habitats
	Juvenile	37 – 59	>25 ppt	0 – 985		**Intertidal and sub-tidal pelagic habitats**
	Adult	<50	>28 ppt	66 – 328		Sub-tidal pelagic
	Spawning			16 - 295	Coarse sand, pebbles, cobbles and boulders	**On the bottom**

Red Hake	Eggs/Larvae **Juvenile** Adult	<50°F	<25 ppt	 65 to >2,460	 Mud and sand Soft sediment	Pelagic/open waters **Intertidal and sub-tidal habitats. Requires shelter (bivalve shells, biogenic depressions, eelgrass).** Benthic habitat
Windowpane flounder	**Eggs and Larvae** **Juvenile** **Adult** Spawning	<68°F <77°F <80°F	>25 ppt 5.5 - 36 ppt >25 ppt	<230 3 – 197 3 - 230	Not specified Mud or fine-grained sand substrates Mud or fine-grained sand substrates	**Pelagic habitat on continental shelf and in estuaries** **Intertidal and sub-tidal benthic areas** **Intertidal and sub-tidal benthic areas** Habitat not specified
Winter Skate (Species does not spawn)	**Juvenile** **Adult**		>25 ppt >25 ppt	<295 <262	Sand, gravel, and mud Sand, gravel, and mud	**Sub-tidal benthic habitats** **Sub-tidal benthic habitats**
Sand Tiger Shark	**Neonate/ Juvenile**	66 - 77°F	23 – 30	9 to 23	Sand, mud or rocky substrates	**Sub-tidal benthic**
Scup	**Eggs** **Larvae** **Juvenile**	55 – 73°F 55 – 73°F >45 °F	>15 ppt >15 ppt >15 ppt	 <125	 **Sand, mud, eelgrass, mussel beds**	**Mixing and seawater zones** **Nearshore areas** **Estuaries and bays**

	Adult Spawning	>45 ˚F		<33	**Sand, mud, eelgrass, mussel beds**	**Estuaries** Shoal areas
Longfin Inshore Squid	Juvenile Adult	47 - 76°F 47 - 57°F	28.5 – 36.5 ppt 28.5 – 36.5 ppt	19 to 524 19 to 656	Water column species Water column species	Pelagic habitats in inshore and offshore waters Pelagic habitats in inshore and offshore waters
Atlantic Mackerel	Eggs Larvae Juvenile Adult	43 - 55°F 42 - 53°F 41 - 68°F 41 - 68°F		<328 69 – 328 33 – 360 <557		Pelagic habitat in inshore estuaries, in upper 15 meters of the water column Pelagic habitat in inshore estuaries Pelagic habitats in inshore estuaries Pelagic habitat in inshore estuaries
Bluefish**	**Juvenile** **Adult**					**Pelagic habitat in major estuaries** **Pelagic waters in major estuaries**
Atlantic Butterfish	**Eggs** Larvae Juvenile Adult	44 - 70°F 47 - 70°F 44 - 80°F 40 – 82°F	 >5 ppt >5 ppt	<5,000 134 to 1148 32 to 918 32 to 918		**Pelagic habitats in inshore estuaries and embayments** Pelagic habitats in inshore estuaries and embayments **Pelagic habitats in inshore estuaries and embayments** **Pelagic habitats in inshore estuaries and embayments**

Summer Flounder	Larvae	0 - 73°F	0.5 to 25.5 ppt	30 to 230 (commonly)		**Inshore in estuaries. Most abundant nearshore (12-50 miles from shore)**
	Juvenile	>37°F	10 – 30 ppt		Marsh creeks, seagrass beds, mudflats and open bay areas	**Inshore in estuaries**
	Adult	>43°F			Coarse sand to silt/clay substrates of marsh creeks	**Shallow estuarine waters in warmer months**
	Spawning					Open ocean
Black Sea Bass	**Juvenile**	>43°F	>18 ppt		Rough bottom, shellfish and eelgrass beds, or along mad-made structures in sandy/shelly areas	**Inshore in estuaries in the spring and summer**
	Adult	>43°F	0.5 – 25 ppt		Rock jetties and rocky bottoms preferred but are also found in sand and shell fragment substrates	**Inshore waters from May through October**

* The EFH for this species does not specify a specific life stage, so all life stages are included herein

** The EFH for this species does not indicate distribution by temperature, salinity, and/or depth, therefore it is assumed its habitat is present.



Figure 1
USGS Site Locus
Pleasant Street Bridge
Dighton, MA

N
W E
S

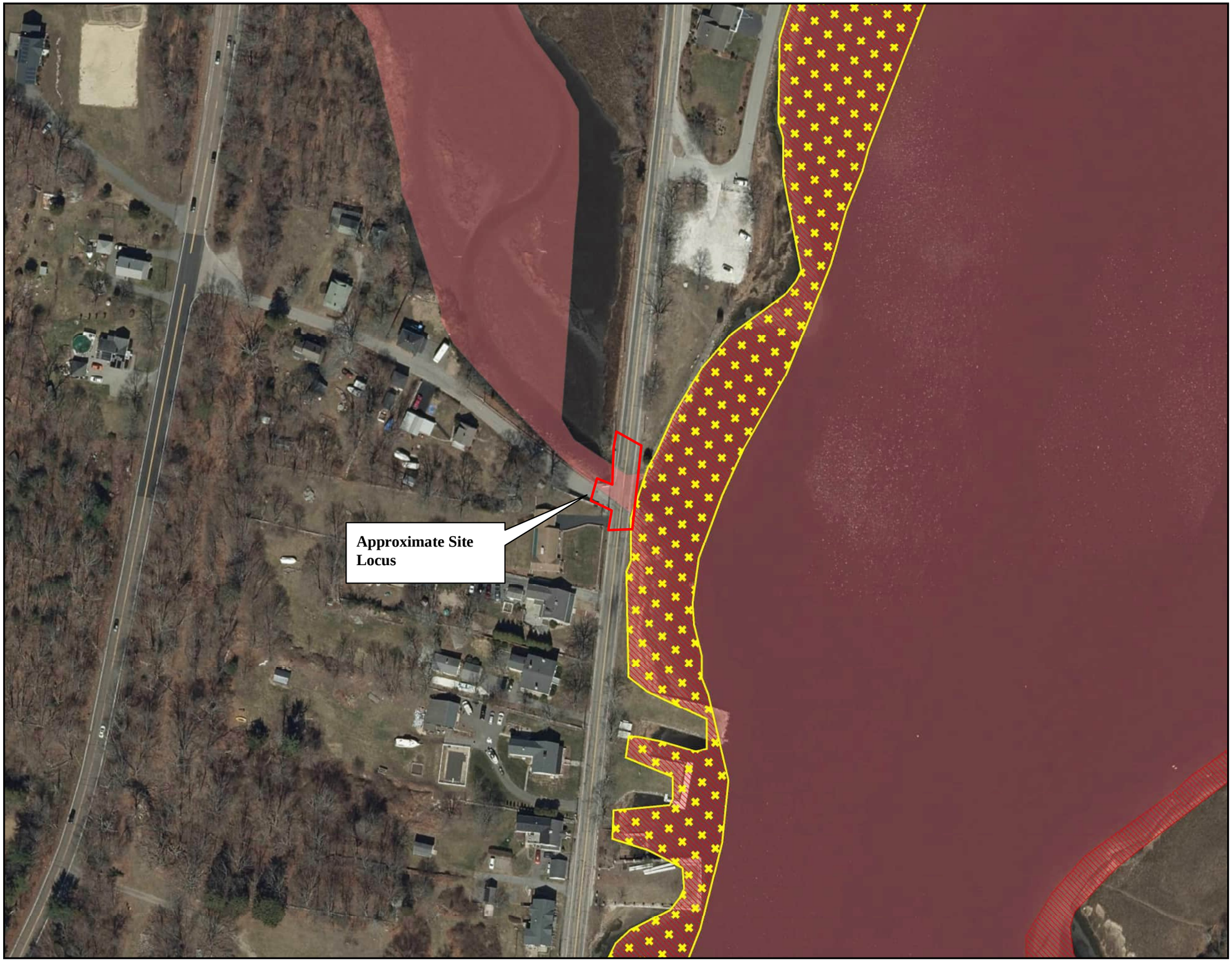
0 1,000 2,000 Feet

1 inch = 1,000 feet

BETA
IMPROVING COMMUNITIES TOGETHER

Data Source: MassGIS USGS Topographic Quadrangle Images (2001)

Figure 2
NHESP Locus
Pleasant Street Bridge
Dighton, MA



Widlife Habitat Legend
- ACEC
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- NHESP Priority Habitat of Rare Species
- NHESP Estimated Habitat of Rare Wildlife
- MA DFW Coldwater Fisheries

Shellfish Suitability Areas

Habitat
- American Oyster
- Bay Scallop
- Blue Mussel
- European Oyster
- Ocean Quahog
- Quahog
- Razor Clam
- Sea Scallop
- Soft-shelled Clam
- Surf Clam

Designated Shellfish Growing Areas

Classification Type
- Approved
- Conditionally Approved
- Restricted
- Conditionally Restricted
- Prohibited

N
W E
S

0 125 250
Feet

1 inch = 125 feet

BETA
IMPROVING COMMUNITIES TOGETHER

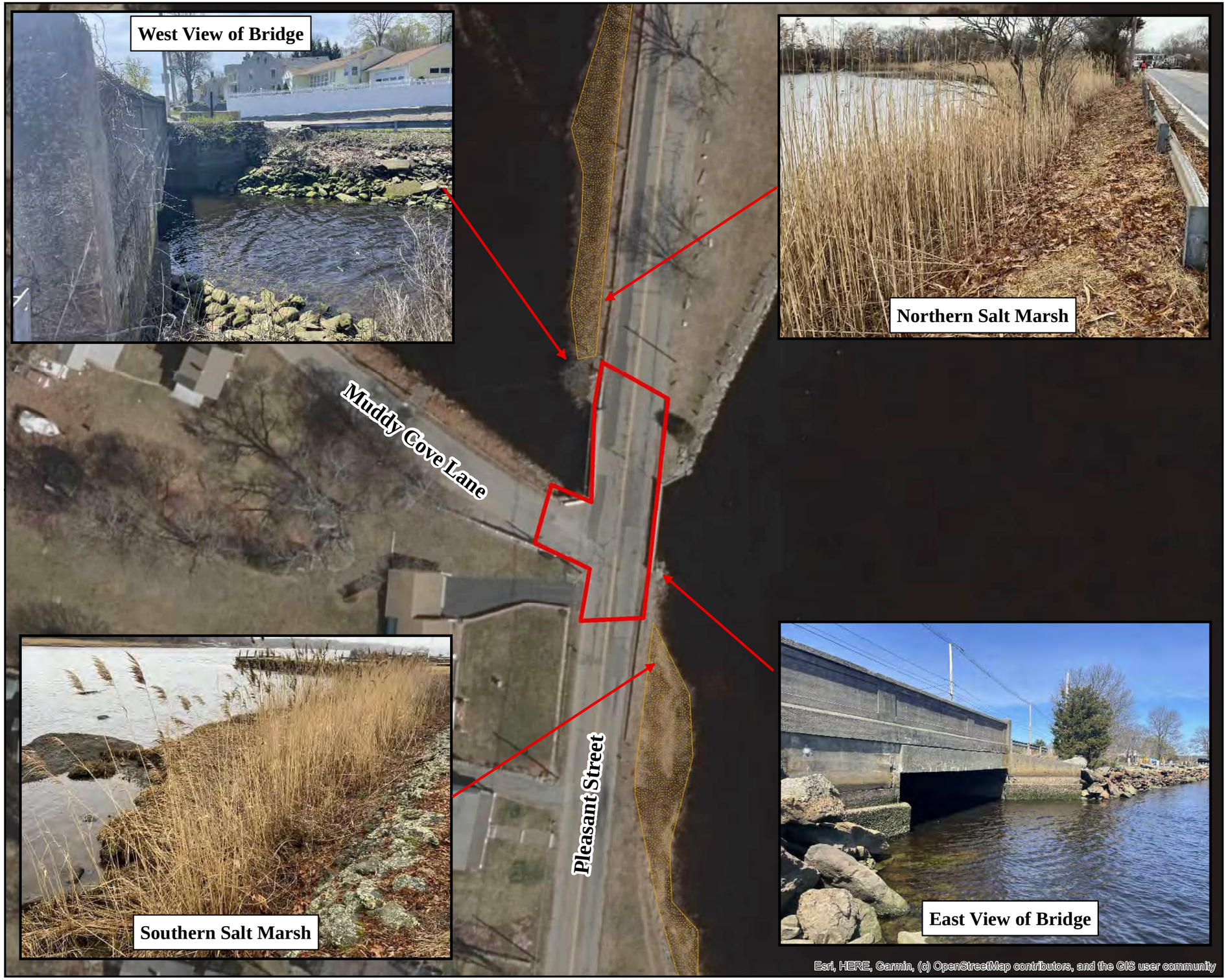


Figure 3
Preliminary Environmental/
Landscape Site Assessment Figure
Pleasant Street Bridge
Dighton, MA

Legend
- Bridge Replacement Area
- Mapped Salt Marsh

N
W E
S

0 50 100 Feet

1 inch = 50 feet

Data Source: MassGIS USGS Color Ortho Imagery (2019), MassDEP Wetlands (1:12000) (2021), NHESP Potential Vernal Pools (2021), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2021), NHESP Estimated Habitats of Rare Species (2021), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014),

BETA
IMPROVING COMMUNITIES TOGETHER

Photo 1



View of the western side of the Pleasant Street Bridge—facing northeast

Photo 2



View of the eastern side of the Pleasant Street Bridge—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 3



View of Muddy Cove Brook upstream of the bridge—facing northwest

Photo 4



View of Muddy Cove Brook downstream of the bridge, where it meets the Taunton River—facing north-east

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23 and June 14, 2022

Photo 5



View of Pleasant Street Bridge span centerline—facing northwest

Photo 6



View of the Pleasant Street Bridge at High Tide—facing southwest

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented June 14, 2022

DIGHTON
PLEASANT/STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	6	6
PROJECT FILE NO. 613636			

IMPACTS PLAN

IMPACT LEGEND AND SUMMARY

HATCH	DESCRIPTION	AREA
	TEMPORARY IMPACT TIDAL WATERS OF THE US (TWOTUS)	545± SF
	PERMANENT IMPACT TIDAL WATERS OF THE US (TWOTUS)	941± SF
	PERMANENT IMPACT HIGH-TIDE LINE (HTL)	109± LF
	TEMPORARY IMPACT HIGH-TIDE LINE (HTL)	54± LF
	SEDIMENT CONTROL	

* TIDAL WATERS OF THE US

NOTES:

1. 100-YEAR FLOODPLAIN BOUNDARIES FROM FEMA FIRM PANELS 25005C0253H AND 25005C021G, DATED JULY 16, 2015 AND JULY 16, 2014, RESPECTIVELY. BASE FLOOD ELEVATION (BFE) ONSITE IS 14 FEET AND THE SITE IS SITUATED ENTIRELY WITHIN THE FLOODZONE.
2. WETLAND RESOURCE AREAS LOCATED ON APRIL 20, 2025 BY BETA GROUP, INC AS SHOWN ON THESE PLANS.

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803
N06° 17' 24.48"E
400.000

PROJECT BEGIN
STA 13+00
N2755965.1947
E759860.2449

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

N/F
TOWN OF DIGHTON
BK/PG 9130/96
PLEASANT STREET

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
PLEASANT STREET

THOMAS CARTIN TRUSTEE
BK/PG 21204/234
MUDDY COVE LANE

TOWN OF DIGHTON
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TOWN OF DIGHTON
BK/PG 19498/268
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F

TRICENTENNIAL PARK

TAUNTON RIVER

MUDDY COVE LN

MUDDY COVE BROOK

PLEASANT ST

EXISTING EASEMENT

EXIST. EFFLUENT PIPELINE (ABAN)

1910 S.H.L.O., #2352 1926 DISCONTINUANCE

RECORD BASELINE

CONSTRUCTION BASELINE

S.H.L.O. #2352 1926 DISCONTINUANCE CONSTRUCTION BASELINE

PERM TWOTUS* IMPACT = 106± SF
TEMP TWOTUS* IMPACT = 36± SF
PERM TWOTUS* IMPACT = 358± SF
TEMP TWOTUS* IMPACT = 48± SF
TEMP TWOTUS* IMPACT = 205± SF
TEMP TWOTUS* IMPACT = 170± SF
TEMP TWOTUS* IMPACT = 54± SF
PERM TWOTUS* IMPACT = 376± SF
TEMP TWOTUS* IMPACT = 32± SF
PERM TWOTUS* IMPACT = 101± SF

INV-12"CPP
FL=2.02'

SMH
RIM=7.20'

CB
RIM=4.93'

18D RCVR
RIM=11.01'

24D RCVR
RIM=10.99'

18D
RIM=10.77'

18D RCVR
RIM=10.91'

D=030.7519, R=150.000 PT +83.80

L=80.508, R=150.000

L=+03.30

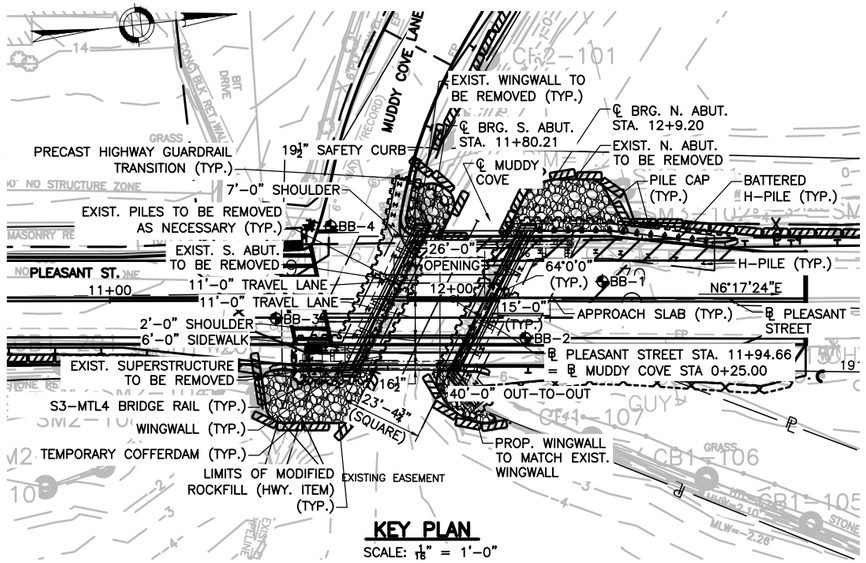
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MLW=-2.26'
HTL=3.76'

0 40 80 160
SCALE: 1" = 40'

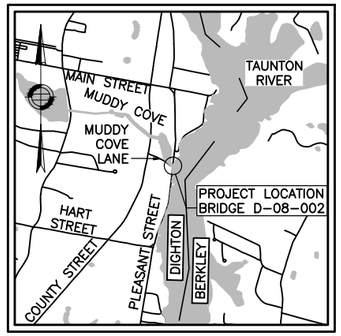
613636_HDI(IMPACT PLAN)_UPDATE.DWG Plotted on 23-Oct-2025 11:30 AM

APPENDIX G

- **Project Plans**



KEY PLAN
SCALE: 1/16" = 1'-0"



LOCUS
SCALE: 1" = 2000'

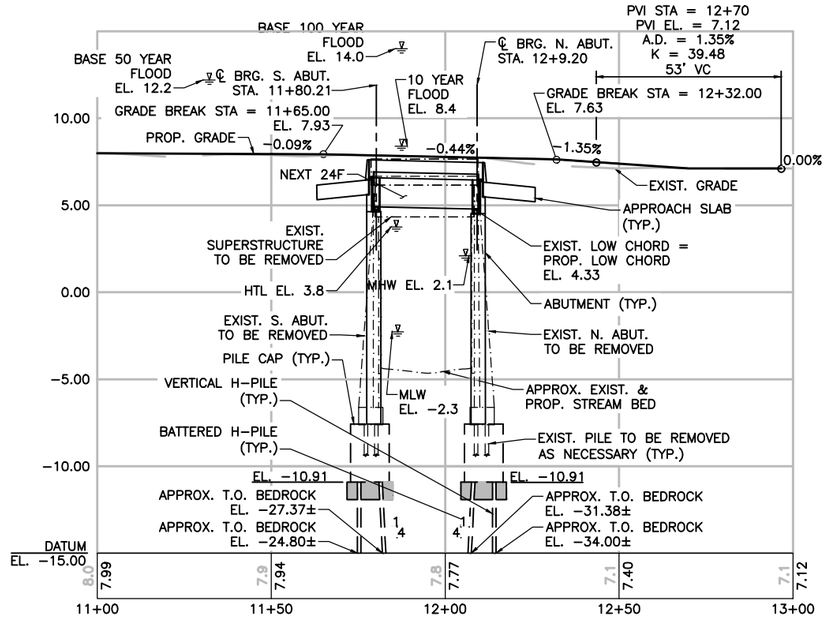
MUNICIPALITY
STREET_NAME-RT#

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	1	7
PROJECT FILE NO.	613636		

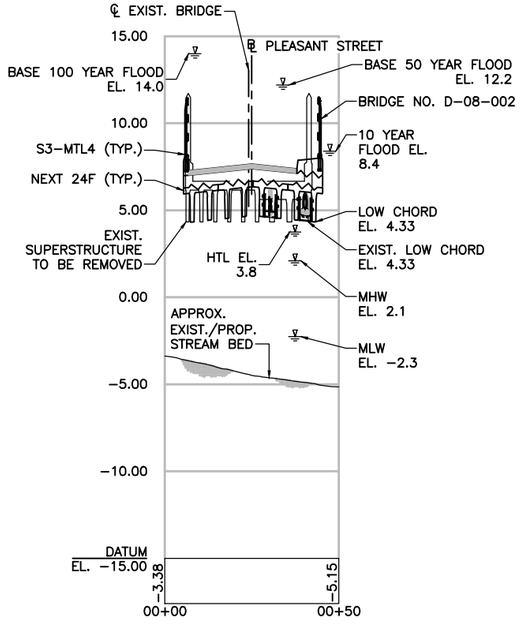
SHEET TITLE

SHEET INDEX

1 TITLE SHEET
2 CONSTRUCTION PLAN
3 GENERAL PLAN & ELEVATION
4 WINGWALL ELEVATIONS
5 DEMOLITION
6 CONSTRUCTION DETAILS
7 IMPACTS PLAN



PLEASANT STREET PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"



MUDDY COVE PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
10 JAN 2025
TODD M. WARZECKI
CIVIL ENGINEER
No. 47367
REGISTERED PROFESSIONAL ENGINEER

##########	ISSUED FOR CONSTRUCTION

MassDOT Highway Division

PROJ_DESC
MUNICIPALITY
FACILITY_CARRIED
FEATURE_INTERSECTED

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

STATE BRIDGE ENGINEER _____ CHIEF ENGINEER _____

BETA GROUP, INC.
701 GEORGE WASHINGTON HIGHWAY,
LINCOLN, RI 02865

SHEET 1 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1)

TITLE PAGE_RECOVER.DWG Plotted on 9-Dec-2025 11:04 AM

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 21+01 (MEET EXIST) TO 20+67 RT (MUDDY COVE LN)
TRANSITION TO BRIDGE RAIL STA 20+67 TO 20+33 LT
BRIDGE S3-TL4 GUARDRAIL STA 20+33 TO 12+77 LT
(MUDDY COVE LN AFTER 20+33 AND PLEASANT STREET AFTER 12+73)
TRANSITION TO BRIDGE RAIL STA 12+73 TO 13+07 LT
TRANSITION TO NCHRP 350 GUARDRAIL STA 13+07 TO 13+41 LT (MEET EXIST)

TANGENT END TREATMENT - TL-3 STA 10+00 TO 10+25 RT
GUARDRAIL - TL-3 (SINGLE FACED, DEEP POSTS) STA 10+25 TO 11+17 RT
TRANSITION TO BRIDGE RAIL STA 11+17 TO 11+51RT
BRIDGE S3-TL4 GUARDRAIL STA 11+51 TO 12+05 RT
TRANSITION TO BRIDGE RAIL STA 12+05 TO 12+39 RT
TRAILING ANCHORAGE STA 12+39 TO 12+49 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE UTILITY PLAN

DRAINAGE DETAILS

NONE

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	2	6
PROJECT FILE NO.	613636		

CONSTRUCTION_PLAN

NAD 83 N

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

N/F
TOWN OF DIGHTON
BK/PG 9130/96
PLEASANT STREET

MUDDY COVE LN

MUDDY COVE BROOK

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
PLEASANT STREET

TOWN OF DIGHTON
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TRICENTENNIAL PARK

THOMAS CARTIN TRUSTEE
BK/PG 21204/234
MUDDY COVE LANE

TAUNTON RIVER

PLEASANT ST

1910 S.H.L.O., #2352 1926 DISCONTINUANCE

N06° 17' 24.48"E
400.000

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

PROJECT END
STA 13+00.20
N2755965.3935
E759860.2668

PROP LAYOUT ALTERATION
LIMIT OF WORK (MATCH EXIST) (+00)
RET TREE
PROP TREE PROTECTION
PROP TEMP EASEMENT
PROP LAYOUT ALTERATION
REM HMA WALK
PROP LOAM AND SEED FOR LAWNS
PROP LOAM AND SEED FOR LAWNS
RET
SAWCUT
PROP FULL DEPTH PVMT
RET WALL
RET FENCE
RET
PROP LOAM AND SEED FOR LAWNS
PROP CC PCR
PROP CC SW AT DWY
PROP TEMP EASEMENT
PROP LOAM AND SEED FOR LAWNS
RET WALL
PROP GRAN CURB CORNER, TYPE A (3" REVEAL)
PROP MODIFIED HMA BERM
SAWCUT
PROP HMA DWY
SAWCUT
PROP CC SW AT DWY
RET WALL
APPROX LIMIT OF GRADING (TYP)
PROP FULL DEPTH PVMT
PROP LOAM AND SEED FOR LAWNS
PROP PVMT MILLING MULCH UNDER GUARDRAIL
R&D GUARDRAIL
PROP LOAM AND SEED FOR ROADSIDES
PROP TEMP FENCE
PROP PVMT FINE MILLING AND OVERLAY
PROP SEDIMENT CONTROL BARRIER
PROP TEMP EASEMENT
MATCH EXIST
SAWCUT
END PROP PVMT FINE MILLING BEGIN PROP FULL DEPTH PVMT (+50)
SAWCUT
PROP HMA DWY
PROP HMA DWY
PROP LOAM AND SEED FOR LAWNS
PROP PVMT FINE MILLING AND OVERLAY
SAWCUT
END PROP FULL DEPTH PVMT
BEGIN PROP PVMT FINE MILLING (+75)
PROP TEMP FENCE
PROP LOAM AND SEED FOR ROADSIDES
PROP SEDIMENT CONTROL BARRIER
APPROX LIMIT OF GRADING (TYP)
R&D CONC BARRIER
PROP TEMP EASEMENT
R&D GUARDRAIL
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT.
PROP SEDIMENT CONTROL BARRIER
PROP LOAM AND SEED FOR ROADSIDES
APPROX LIMIT OF GRADING (TYP)
PROP TEMP FENCE
1910 S.H.L.O., #2352 1926 DISCONTINUANCE
SAWCUT
END FULL DEPTH PVMT (MATCH EXIST) (+00)
1910 S.H.L.O., #2352 1926 DISCONTINUANCE
RET TREE
PROP TREE PROTECTION
PROP CC PCR
PCR-3
R&S BOULDER
R&S BOULDER
PROP PERM EASEMENT
PROP CC SW
PROP LOAM AND SEED FOR LAWNS
PROP SEDIMENT BARRIER
PROP TEMP EASEMENT
PROP GRAN CURB TYPE VB
PROP PERM EASEMENT
PCR-2
PROP CC PCR
EXISTING EASEMENT
PROP MODIFIED ROCKFILL (TYP)
PROP LAYOUT ALTERATION
PROP SEDIMENT CONTROL BARRIER
PROP PERM EASEMENT
BRIDGE NO. D-08-002 (SEE BRIDGE PLANS)
R&D WALL
EFFLUENT PIPELINE (ABAN)
RECORD BASELINE
CONSTRUCTION BASELINE
EOP
PCR-1
PC +03+80.50
L=30.75
D=9°30'08"
R=150.00
21+50
S.H.L.O #2352 1926 DISCONTINUANCE
CONSTRUCTION BASELINE
S.H.L.O #2352 1926 DISCONTINUANCE
10
11
12
13
68
69
70
72
2.7'
31.1
137+50
18"
24D RCVR RIM=10.09'
18D RCVR RIM=10.91'
RIM=11.01'
18D RIM=10.77'
CB RIM=4.93'
INV=12CMP FL=4.00'
INV=12"CPP FL=2.02'
SMH RIM=7.20'
CB2-105
CB2-104
CB2-103
CB2-102
CB2-101
CB2-100
SM3-101
SM3-102
SM3-103
SM3-104
SM3-105
SM3-106
SM3-107
SM3-108
CB1-104
CB1-103
CB1-102
CB1-101
CB1-100
SM1-109
SM1-108
SM1-107
SM1-106
SM2-111
SM2-110
SM2-109
SM2-108
SM2-107
SM2-106
SM2-105
SM2-104
SM2-103
SM2-102
SM2-101
UPL-2
UPL-69
UPLP-70
MLW=-2.26'
MLW=-2.25'
50' NO STRUCTURE ZONE
6" CI WATER
8" CI WATER
12" CI WATER
2" GAS
2" CS
12"
36"
30"
24"
15"
9"
0 40 80 160
SCALE: 1" = 40'

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	3A	6
PROJECT FILE NO.	613636		

GENERAL PLAN & ELEVATION 3A

Plotted on 14-Jan-2026 10:55 AM
GEN PLAN AND ELEVATION.DWG

CB2–100
SMH
RIM=7.20'
SM3–101
EXIST. 6"ø WATER
EXIST. SEWER (ABANDONED)
MUDDY COVE LANE
LIMITS OF MODIFIED ROCKFILL (HWY ITEM) (TYP.)
℄ BRG. N. ABUT. STA. 12+9.20
2'–6"
(3) SPACES @ 5'–0" = 15'–0"
EXIST. WINGWALL TO BE REMOVED (TYP.)
℄ BRG. S. ABUT. STA. 11+80.21
RAILING R = 5'–0" SHALL BE INDIVIDUALLY FABRICATED WITH STEEL PLATES BUTT WELDED AND GROUND SMOOTH
23'–0"
(10) SPACES @ 6'–6" = 65'–0"
(3) SPACES @ 5'–0" = 15'–0"
3'–7"
POST SPACING
BB–4
℄ MUDDY COVE
RELOCATED OHW (BY OTHERS)
19½" SAFETY CURB
20'–0"
26'–0" OPENING (SKEWED)
12'–7¾" PHASE 2 WORK (SEE SHEET 6 FOR DETAILS)
7'–0" SHOULDER
173°29'25"
19'–9¾"
20'–0"
20'–2¼"
PARAFFIN JOINT SPACING
EXIST. 2"ø GAS
APPROACH SLAB (TYP.)
RELOCATED UTILITY POLE (BY OTHERS)
EXIST. PILES TO BE REMOVED AS NECESSARY (TYP.)
6"ø WATER
EXIST. N. ABUT. TO BE REMOVED
PILE CAP (TYP.)
VERTICAL H–PILE (TYP.)
BATTERED H–PILE (TYP.)
WP 1
EXIST. S. ABUT. TO BE REMOVED
11'–0" TRAVEL LANE
40'–0" OUT–TO–OUT
64'0'0" (TYP.)
BB–1
12+00
℄ PLEASANT STREET
N6°17'24"E
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
15'–0" (TYP.)
REMOVABLE PANEL FOR RELOCATED 2"ø GAS (TYP.)
BB–3
WP 2
2"ø GAS (BY OTHERS)
℄ PLEASANT STREET STA. 11+94.66 = ℄ MUDDY COVE STA 0+25.00
EXIST. SUPERSTRUCTURE TO BE REMOVED
2'–0" SHOULDER
BB–2
TEMPORARY COFFERDAM (TYP.)
C.I.P. HIGHWAY GUARDRAIL TRANSITION
27'–4½" PHASE 1 WORK (SEE SHEET 6 FOR DETAILS)
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
22'–0"
21'–9⅝"
6'–0" SDWK.
8"ø WATER
PARAFFIN JOINT SPACING
PRECAST HIGHWAY GUARDRAIL TRANSITION (TYP.)
WINGWALL (TYP.)
S3–MTL4 BRIDGE RAIL (TYP.)
16½"
(2) SPACES @ 5'–8" = 11'–4"
2'–6"
(4) SPACES @ 6'–6" = 26'–0"
4'–2⅝"
POST SPACING
PERMANENT EASEMENT
TEMPORARY EASEMENT
PROP. WINGWALL TO MATCH EXIST. WINGWALL
23'–4¾" OPENING (SQUARE)
SM2–105
SM2–106
CB1–107
3
N: 2755884.185'
E: 759872.469'
EL: 6.642'
SPIKE
MEAN LOW WATER (ELEV. = –2.62')

GENERAL PLAN
SCALE: 3/16" = 1'–0"

##########	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

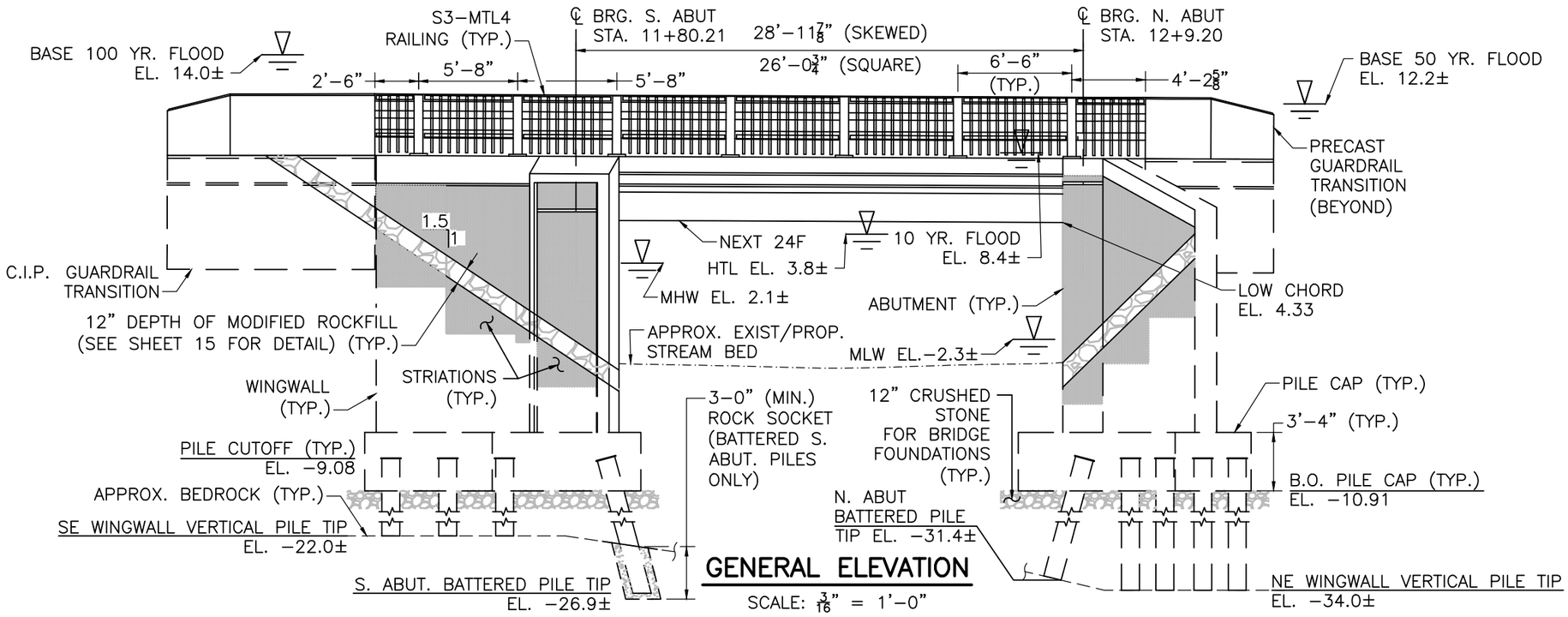
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

SHEET 3A OF 7 SHEETS BRIDGE NO. D–08–002 (CV1)

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-----	3B	7
PROJECT FILE NO.	613636		

GENERAL PLAN & ELEVATION 3B



GENERAL ELEVATION

SCALE: $\frac{3}{16}$" = 1'–0"

########## #	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

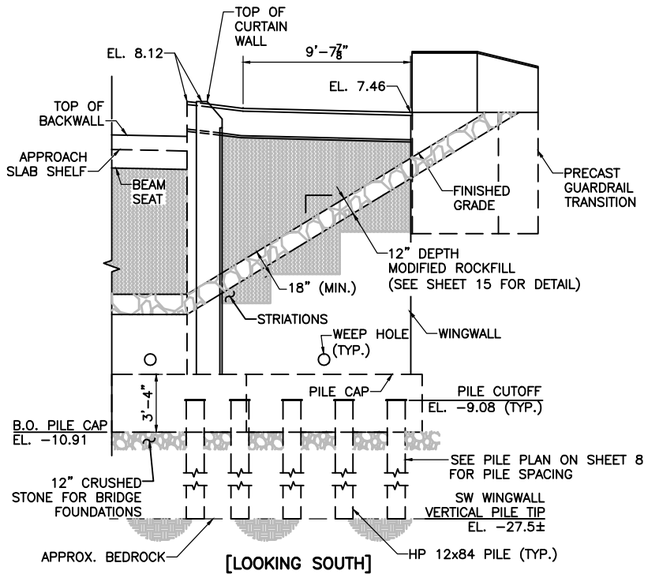
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

GEN PLAN AND ELEVATION.DWG Plotted on 9-Dec-2025 11:16 AM

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	4	7
PROJECT FILE NO.	613636		

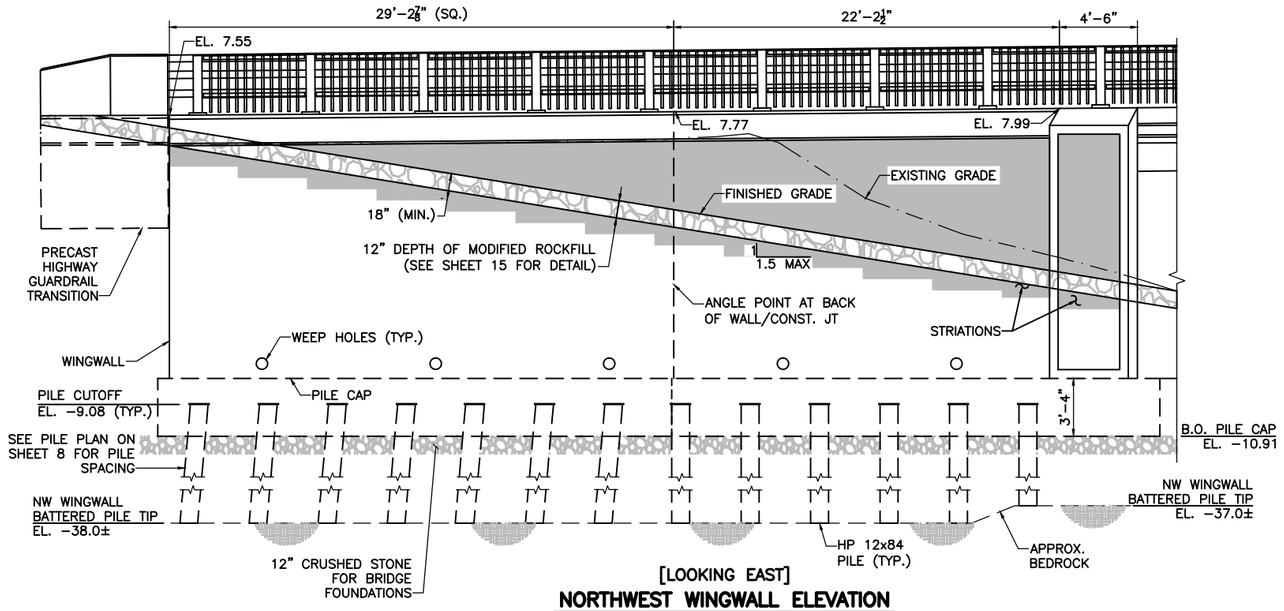
WINGWALL ELEVATIONS



[LOOKING SOUTH]

SOUTHWEST WINGWALL ELEVATION

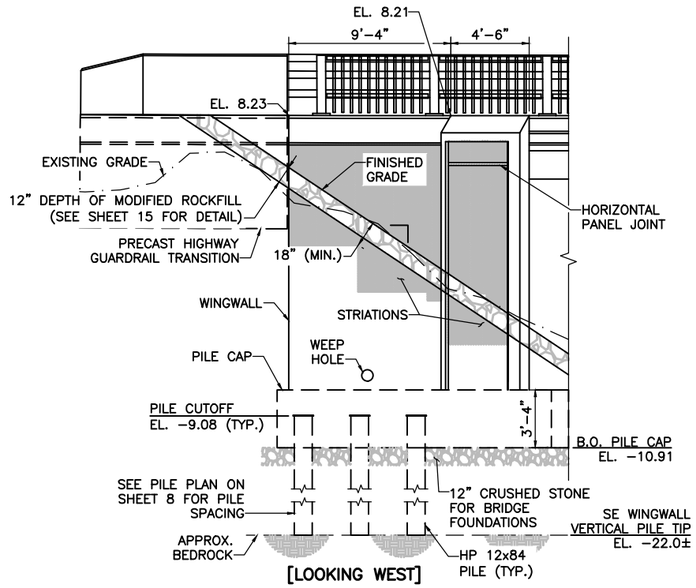
SCALE: ¼" = 1'-0"



[LOOKING EAST]

NORTHWEST WINGWALL ELEVATION

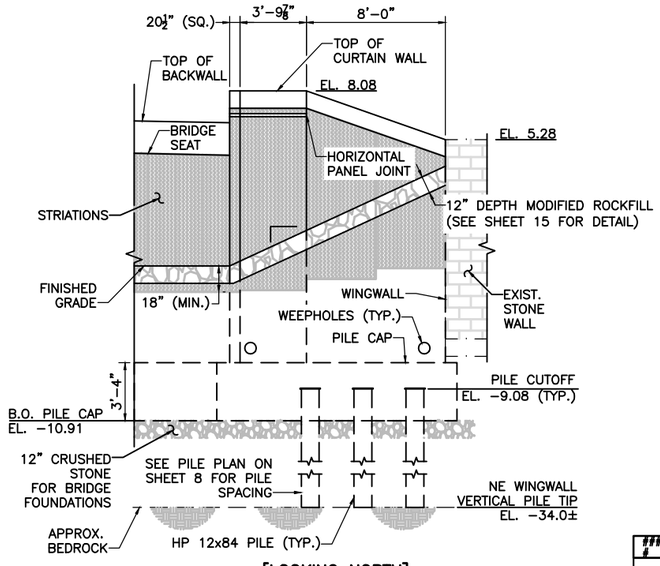
SCALE: ¼" = 1'-0"



[LOOKING WEST]

SOUTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"



[LOOKING NORTH]

NORTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"

#	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

WINGWALL ELEVATIONS.DWG Plotted on 9-Dec-2025 11:07 AM

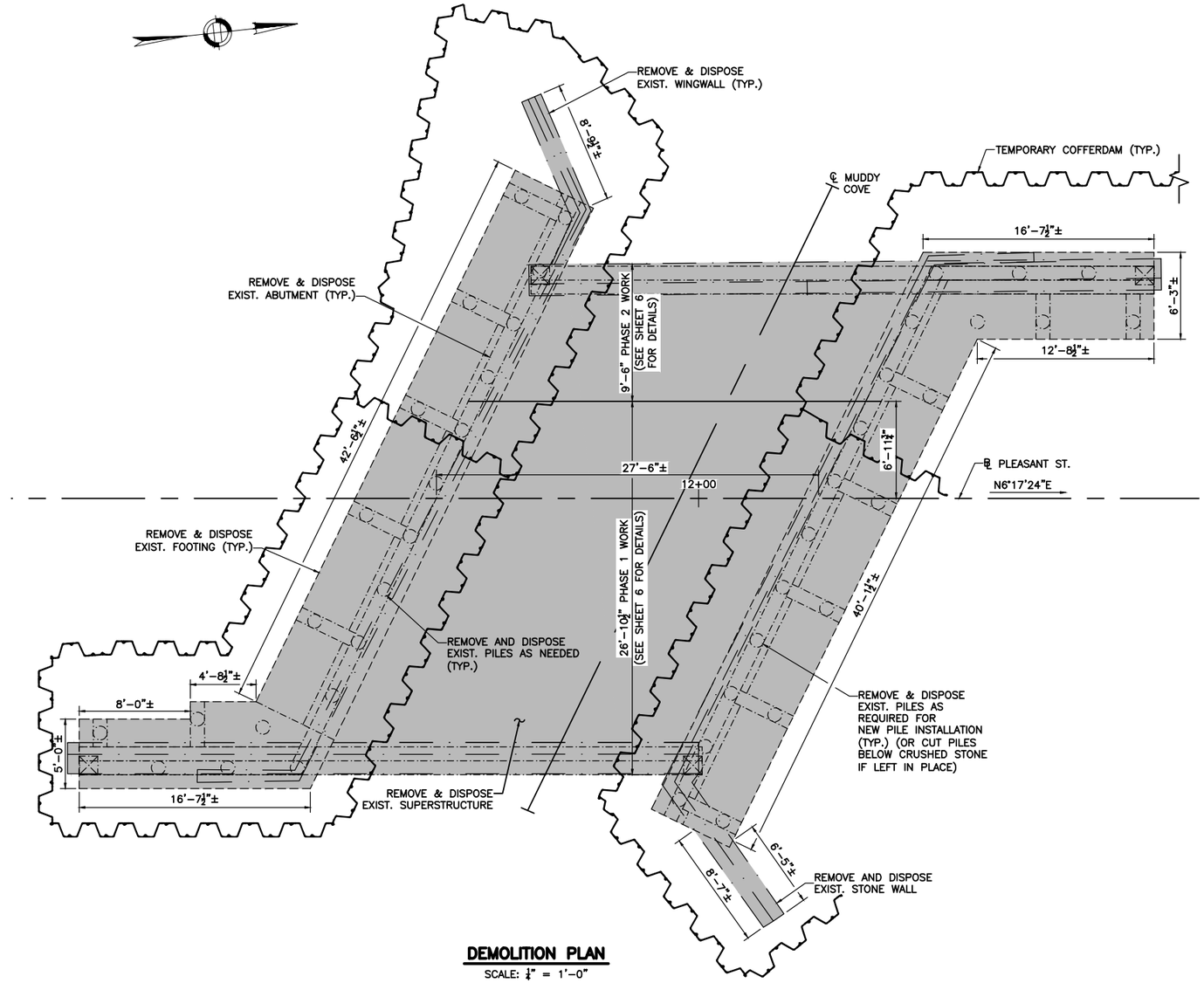
NOTES:

1. TEMPORARY COFFERDAM TO BE PUT IN PLACE ONCE EXISTING SUPERSTRUCTURE IS REMOVED

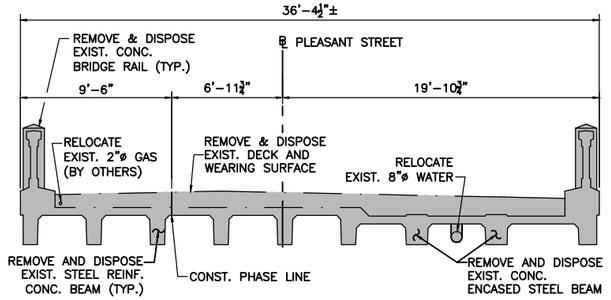
DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	5	7
PROJECT FILE NO.	613636		

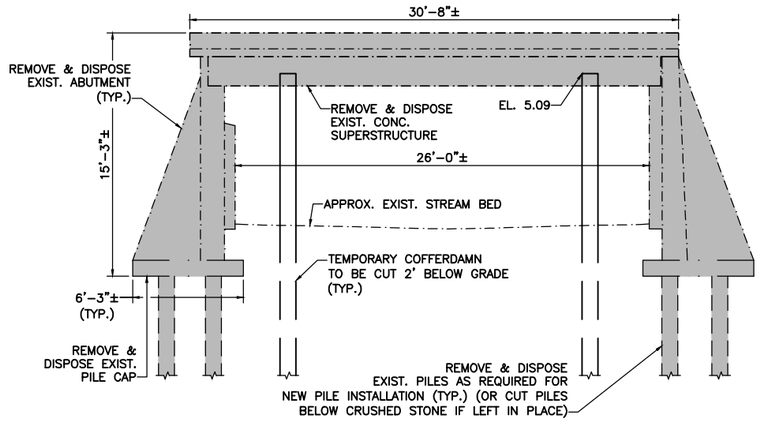
DEMOLITION



DEMOLITION PLAN
SCALE: ¼" = 1'-0"



DEMOLITION CROSS SECTION
SCALE: ¼" = 1'-0"



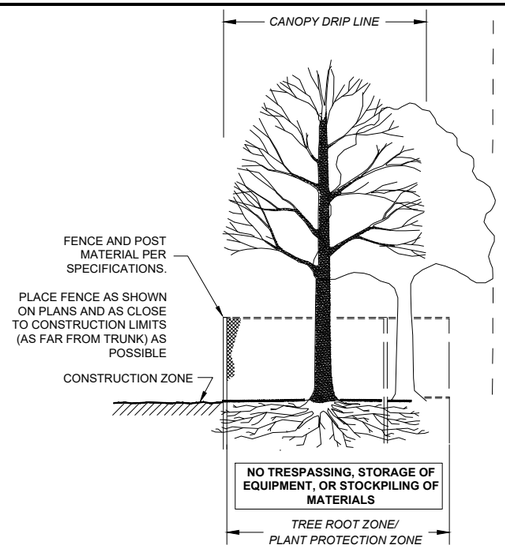
DEMOLITION LONGITUDINAL SECTION
SCALE: ¼" = 1'-0"

Plotted on 19-Jan-2026 1:49 PM
CONSTRUCTION DETAILS.DWG

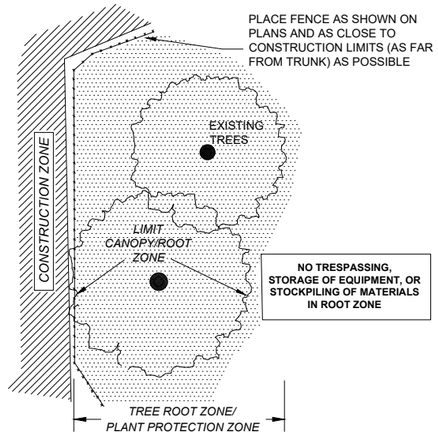
DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	6	7
PROJECT FILE NO.	613636		

CONSTRUCTION DETAILS

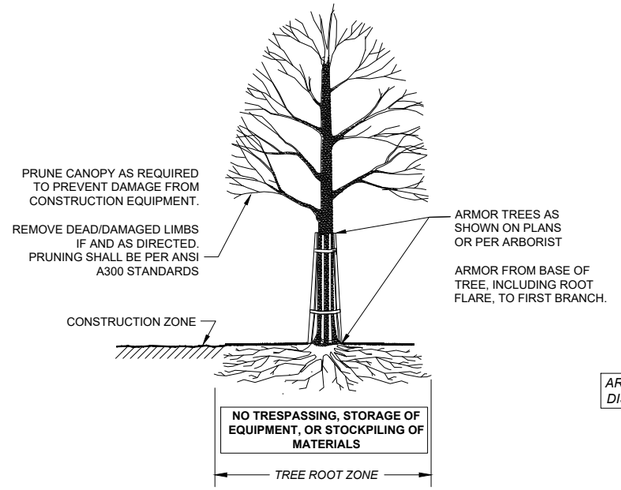


SECTION - FENCE PROTECTION OF ROOT ZONE



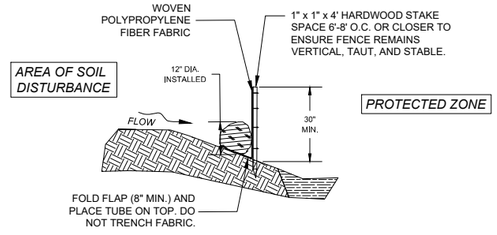
PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - ROOT ZONE
NOT TO SCALE



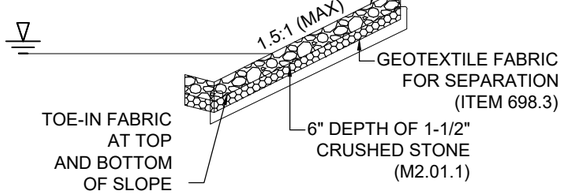
SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - TRUNK
NOT TO SCALE

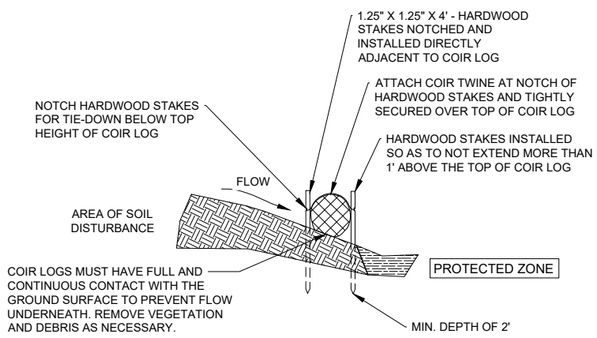


SECTION

COMPOST FILTER TUBE & SILT FEDNCE
NOT TO SCALE

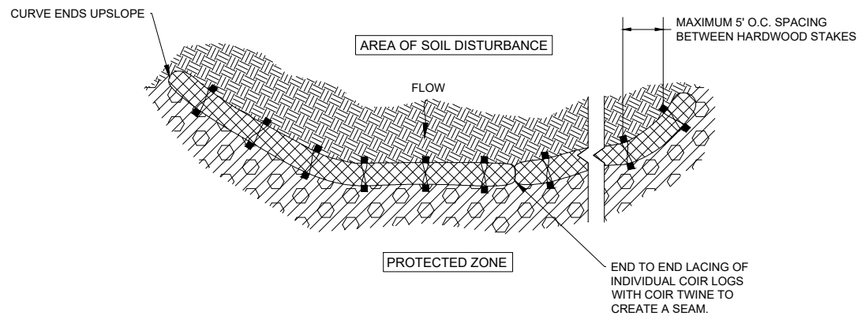


MODIFIED ROCKFILL
NOT TO SCALE



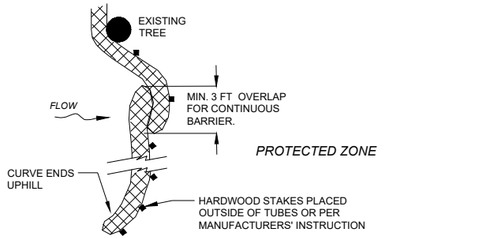
*IF, UPON APPROVAL OF THE ENGINEER, COIR WATTLE IS USED IN PLACE OF COIR LOGS FOR REPAIRS DURING CONSTRUCTION, DIAMETER OF COIR WATTLE MAY BE 12 INCHES.

SECTION



PLAN VIEW

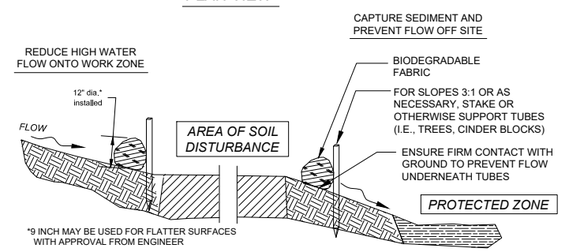
SEDIMENT BARRIER - COIR LOG
NOT TO SCALE



PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

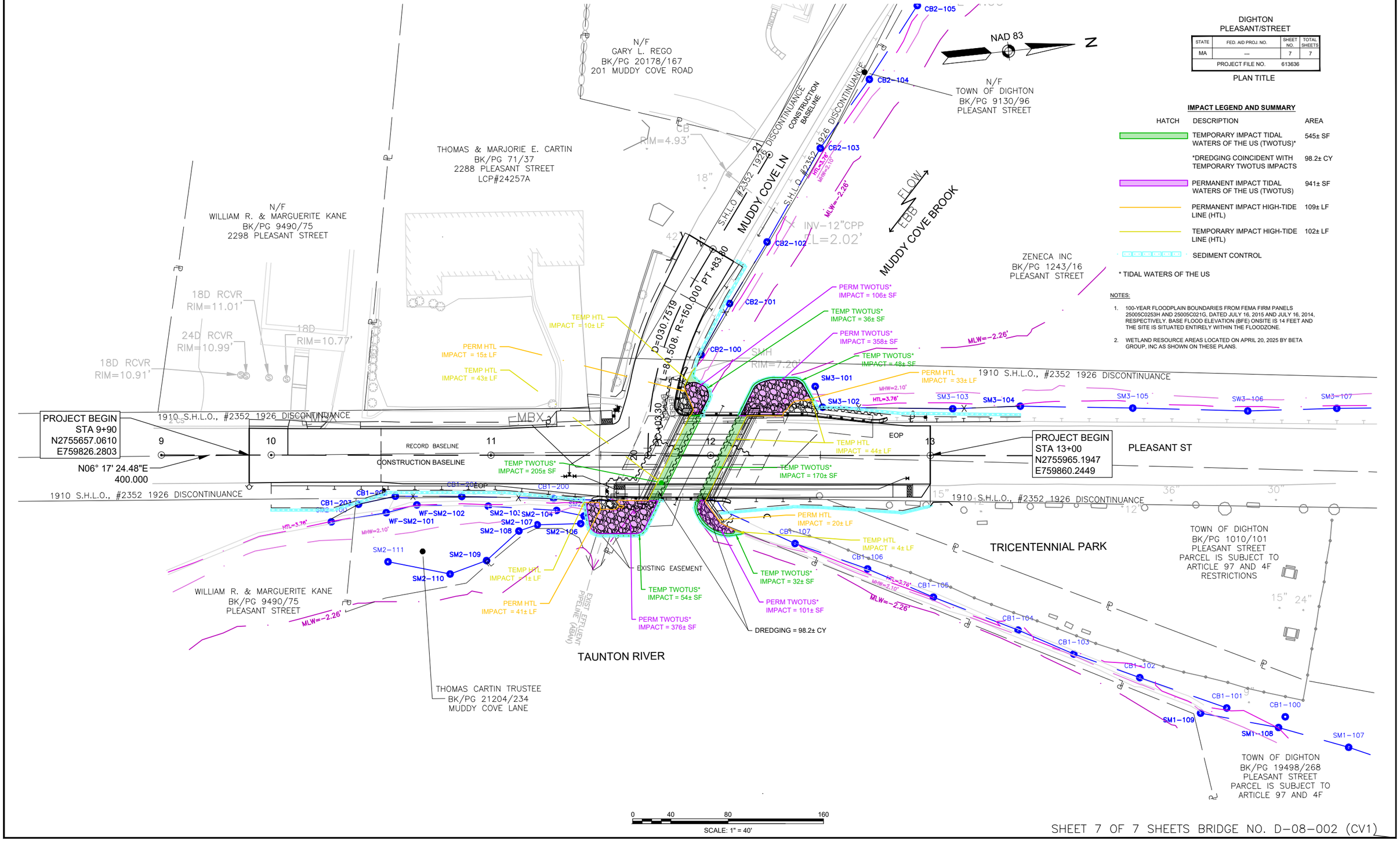
ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLAN VIEW



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE
NOT TO SCALE


DIGHTON
PLEASANT/STREET
STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS
MA | --- | 7 | 7
PROJECT FILE NO. 613636
PLAN TITLE
NAD 83
N
IMPACT LEGEND AND SUMMARY
HATCH | DESCRIPTION | AREA
TEMPORARY IMPACT TIDAL WATERS OF THE US (TWOTUS)* | 545± SF
*DREDGING COINCIDENT WITH TEMPORARY TWOTUS IMPACTS | 98.2± CY
PERMANENT IMPACT TIDAL WATERS OF THE US (TWOTUS) | 941± SF
PERMANENT IMPACT HIGH-TIDE LINE (HTL) | 109± LF
TEMPORARY IMPACT HIGH-TIDE LINE (HTL) | 102± LF
SEDIMENT CONTROL
* TIDAL WATERS OF THE US
NOTES:
1. 100-YEAR FLOODPLAIN BOUNDARIES FROM FEMA FIRM PANELS 25005C0253H AND 25005C021G, DATED JULY 16, 2015 AND JULY 16, 2014, RESPECTIVELY. BASE FLOOD ELEVATION (BFE) ONSITE IS 14 FEET AND THE SITE IS SITUATED ENTIRELY WITHIN THE FLOODZONE.
2. WETLAND RESOURCE AREAS LOCATED ON APRIL 20, 2025 BY BETA GROUP, INC AS SHOWN ON THESE PLANS.
N/F GARY L. REGO BK/PG 20178/167 201 MUDDY COVE ROAD
N/F TOWN OF DIGHTON BK/PG 9130/96 PLEASANT STREET
THOMAS & MARJORIE E. CARTIN BK/PG 71/37 2288 PLEASANT STREET LCP#24257A
N/F WILLIAM R. & MARGUERITE KANE BK/PG 9490/75 2298 PLEASANT STREET
ZENECA INC BK/PG 1243/16 PLEASANT STREET
MUDDY COVE LN
MUDDY COVE BROOK
FLOW
EBB
1910 S.H.L.O., #2352 1926 DISCONTINUANCE
CONSTRUCTION BASELINE
RECORD BASELINE
PROJECT BEGIN STA 9+90 N2755657.0610 E759826.2803
N06° 17' 24.48"E 400.000
PROJECT BEGIN STA 13+00 N2755965.1947 E759860.2449
PLEASANT ST
TRICENTENNIAL PARK
TOWN OF DIGHTON BK/PG 1010/101 PLEASANT STREET PARCEL IS SUBJECT TO ARTICLE 97 AND 4F RESTRICTIONS
TOWN OF DIGHTON BK/PG 19498/268 PLEASANT STREET PARCEL IS SUBJECT TO ARTICLE 97 AND 4F
WILLIAM R. & MARGUERITE KANE BK/PG 9490/75 PLEASANT STREET
THOMAS CARTIN TRUSTEE BK/PG 21204/234 MUDDY COVE LANE
TAUNTON RIVER
EXISTING EASEMENT
EXIST EFFLUENT PIPELINE (ABAN)
INV-12"CPP EL=2.02'
SMH RIM=7.26'
CB RIM=4.93'
18D RCVR RIM=11.01'
18D RCVR RIM=10.91'
24D RCVR RIM=10.99'
18D RIM=10.77'
D=030.7519', R=150.000' PT +83.80
L=80.508'
PT +03.30
CB2-105
CB2-104
CB2-103
CB2-102
CB2-101
CB2-100
SM3-101
SM3-102
SM3-103
SM3-104
SM3-105
SM3-106
SM3-107
CB1-207
CB1-206
CB1-205
CB1-200
CB1-107
CB1-106
CB1-105
CB1-104
CB1-103
CB1-102
CB1-101
CB1-100
SM2-101
WF-SM2-101
WF-SM2-102
SM2-103
SM2-104
SM2-105
SM2-106
SM2-107
SM2-108
SM2-109
SM2-110
SM2-111
SM1-109
SM1-108
SM1-107
EOP
MLW=-2.26'
MHW=2.10'
HTL=3.76'
TEMP HTL IMPACT = 10± LF
PERM HTL IMPACT = 15± LF
TEMP HTL IMPACT = 43± LF
PERM TWOTUS* IMPACT = 106± SF
TEMP TWOTUS* IMPACT = 36± SF
PERM TWOTUS* IMPACT = 358± SF
TEMP TWOTUS* IMPACT = 48± SF
PERM HTL IMPACT = 33± LF
TEMP HTL IMPACT = 44± LF
TEMP TWOTUS* IMPACT = 170± SF
TEMP TWOTUS* IMPACT = 205± SF
PERM HTL IMPACT = 20± LF
TEMP HTL IMPACT = 4± LF
TEMP TWOTUS* IMPACT = 32± SF
PERM TWOTUS* IMPACT = 101± SF
TEMP HTL IMPACT = 31± LF
PERM HTL IMPACT = 41± LF
TEMP TWOTUS* IMPACT = 54± SF
PERM TWOTUS* IMPACT = 376± SF
DREDGING = 98.2± CY
0 40 80 160
SCALE: 1" = 40'
SHEET 7 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1)
613636_HDI(IMPACT PLAN)_UPDATE.DWG Plotted on 19-Jan-2026 12:38 PM

APPENDIX H

- **Public Notice**

Public Notice

Massachusetts Department of Environmental Protection
Division of Wetlands and Waterways
MassDEP Boston Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Pursuant to 33 U.S.C. 1341 and M.G.L. c. 21 §§ 26 - 53, notice is given of a 401 Water Quality Certification application for the replacement of the Pleasant Street Bridge over Muddy Cove Brook in Dighton, Massachusetts by the Town of Dighton, 979 Somerset Avenue, Dighton, MA 02715 in connection with the Massachusetts Department of Transportation – Highway Division, Ten Park Plaza, Room 7360, Boston, MA 02116. The project proposes the replacement of the existing bridge conveying Pleasant Street over Muddy Cove Brook. This will involve the demolition of the existing bridge, replacement of both abutments, construction of a new bridge deck and installation of a concrete sidewalk. Additional information may be obtained from the Massachusetts Department of Transportation – Highway Division at the above address, Attention Courtney Walker or by emailing Courtney.l.walker@dot.state.ma.us. Written comments should be sent to MassDEP Wetlands Program, Attention Heidi Davis, 100 Cambridge Street, Suite 900, Boston, MA 02114 or heidi.davis@mass.gov within 21 days of this notice.

Any group of ten persons, any aggrieved person, or any governmental body or private organization with a mandate to protect the environment who submits written comments may appeal the Department's Certification. Failure to submit written comments before the end of the public comment period may result in the waiver of any right to an adjudicatory hearing.

APPENDIX I

- **Hydraulic Analysis**

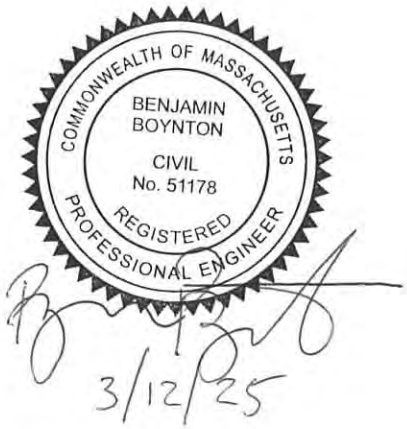
Town of Dighton, MA

Pleasant Street Bridge over Muddy Cove Brook

Bridge No. D-08-002

Revised March 2025

HYDRAULIC AND SCOUR ANALYSIS REPORT



BETA
701 George Washington Hwy
Lincoln, Rhode Island 02865
401.333.2382
www.BETA-Inc.com

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1.0 EXECUTIVE SUMMARY

The following report presents the hydrologic, hydraulic, and scour analysis conducted for Pleasant Street over Muddy Cove Brook in the Town of Dighton, MA. The intent of this study is to evaluate the hydraulic performance of the existing bridge and proposed bridge replacement.

The bridge is deteriorating and requires replacement. The water surface elevations at the bridge are controlled by the tidally influenced Taunton River, which flows parallel to Pleasant Street directly downstream of Muddy Cove Brook. The Taunton River has a much larger watershed area and has a significant impact on the Muddy Cove Brook hydraulics. The FEMA Bristol County Flood Insurance Study establishes the Taunton River water surface elevations during the 10-year and 100-year flood events to be 8.4' and 14', respectively. Both storm events submerge the Pleasant Street Bridge, which has an approximate high point elevation of 8'. During these storm events, widening the bridge will not improve the capacity nor change the water surface elevation due to the tidal impacts. Therefore, the modeling effort has been limited to evaluating scour and designing countermeasures.

2.0 PROJECT DESCRIPTION

2.1 EXISTING STRUCTURE

Pleasant Street Bridge No. D-08-002 carries Pleasant Street over Muddy Cove Brook in Dighton, MA. The existing Pleasant Street Bridge is a single span bridge with a 27'-6" clear span on a north-south alignment. The bridge was constructed in 1914 and renovated in 1949. The superstructure is comprised of concrete encased steel girders on the east side where the original trolley tracks were and concrete tee beams on the west side beneath the original roadway. The substructure consists of reinforced abutments, U-wingwalls and splayed wingwalls which are constructed of poured concrete. These abutments and wingwalls are supported by piles of unknown depth and material. The hot mix asphalt roadway width is approximately 32'-6" with a concrete railing on both sides. A MassDOT Routine Inspection Report dated August 2020 is included as Appendix A.

Per the Routine Inspection Report prepared by MassDOT, the overall condition of the bridge is Fair (Condition Rating of 5) for the Deck and Superstructure and a rating of Fair (Condition Rating of 5) for the substructure. The bridge deck is exhibiting areas of minor spalling and cracking, and efflorescence on the underside. All concrete encased beams have map cracking throughout with efflorescence and some show areas of exposed rebar reinforcement. The concrete bridge railing is non-standard with extensive deterioration, spalls, and posts that are undermined and failed. The abutments exhibit areas of minor cracking spalling and delamination. Additionally, the wingwalls exhibit cracking and abrasion.

2.1.1 CROSSED WATERWAY AT THE BRIDGE LOCATION

Muddy Cove Brook is a tributary to the Taunton River and flows from west to east, passing under Pleasant Street Bridge. The hydraulic opening at the existing bridge is approximately 26'-0" clear and 23'-5" square. The existing low chord and high chord is 4.33' and 7.93', respectively. Muddy Cove Brook is fed upstream by Muddy Cove Pond and various overland flows that span 2.92 sq. miles to the west, bound by Baker Road and Williams Street in Dighton, MA.

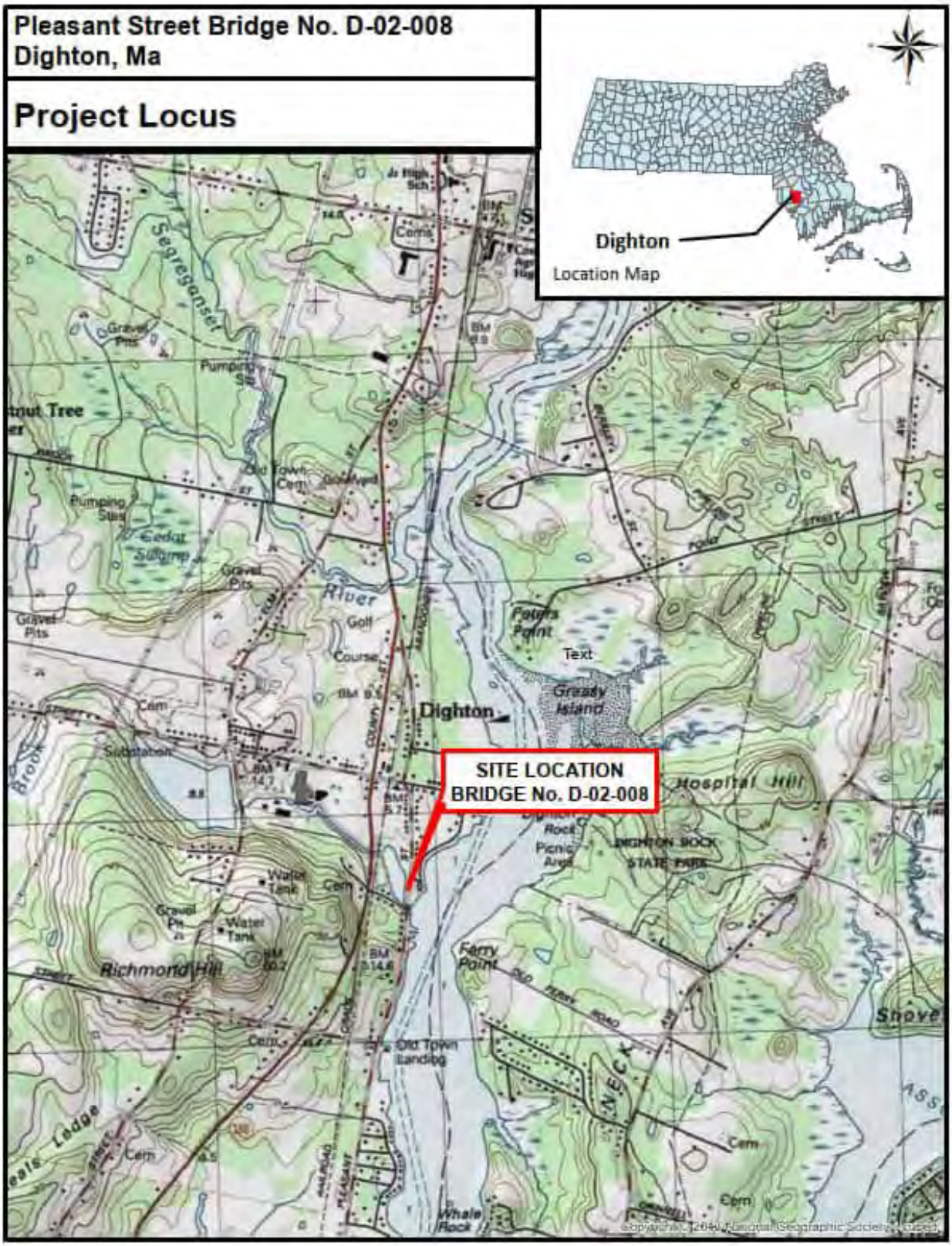


Figure 2-1 – Project Locus

2.1.2 HIGHWAY CONVEYED

- This segment of Pleasant Street has a functional classification of Urban Local Roadway.
- The roadway is a one lane road in each direction between Dublin Street in Somerset and Main Street in Dighton.
- The bridge out-to-out width is 36'-4 ½ " with a curb-to-curb width of 32'-0 ½ ". The existing bridge barriers as reinforced concrete parapets.
- The roadway will be tapered to match the width of existing approach roadways immediately beyond the bridge.

2.1.3 LAND USE IN VICINITY OF THE BRIDGE

The land use in the vicinity of the bridge is classified as residence and agriculture.

2.1.4 SPECIAL SITE CONSIDERATIONS

The Pleasant Street Bridge is located within the National Flood Insurance Program (NFIP) Special Flood Hazard Area (SFHA) Zone AE delineation determined for Taunton River by the Flood Insurance Rate Map (FIRM) No. 25005C0261G dated July 6, 2014. The base flood elevation determined for Zone AE within the project limits is 14 feet. Refer to Appendix B for the FIRM.

The wetland resource areas identified include Land Subject to Coastal Storm Flowage, Land Subject to Tidal Action, Land Under the Ocean, Coastal Bank, Salt Marsh and Land Containing Shellfish. These areas are Subject to Jurisdiction under the Dighton Wetlands Bylaw and the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131 Section 40 - the Act). Impacts to these areas will be minimized, to the extent possible.

3.0 DATA COLLECTION

Surface elevations were derived from NOAA LIDAR, supplemented with survey from Chappell Engineering Associates LLC (2022). The geometry for the existing conditions was generated from field observation, Chappell Engineering Associates survey, and BETA's Type Study Analysis. The geometry for the proposed conditions was generated from BETA's Type Study Analysis (2024).

BETA used a GPS survey at multiple time intervals to compare the water surface elevations at Tricentennial Park (at Pleasant Street) in Dighton and Taunton River at Bicentennial Park in Fall River. Bicentennial Park is approximately 8 miles downstream of the Muddy Cove Brook confluence with the Taunton River.

Tidal data was gathered from the National Oceanic and Atmospheric Administration (NOAA) gauge station #8447386 in Fall River, MA. The gauge station is located in Mount Hope Bay at the mouth of the Taunton River, approximately 1 mile downstream of Bicentennial Park and 9 miles downstream of the Pleasant Street Bridge project. It was determined that the gauge station observed tides closely match the GPS survey results (Table 3-1). Therefore, the historic gauge station tides were used in the analysis as the downstream boundary condition at the Taunton River.

The horizontal datum is NAD83 Massachusetts State Plane Coordinates and the vertical datum is the North American Vertical Datum of 1988 (NAVD88).

Table 3-1 NOAA and GPS Water Surface Elevation Comparison

Date	Location	GPS Data Time	Water Surface Elevation (WSE)	NOAA #8447386 Observed WSE	NOAA #8447386 Predicted WSE	NOAA Time
6/8/2022	Fall River Bicentennial Park	9:00:00 AM	-0.75	-0.74	-1.60	9:12:00 AM
	Dighton Tricentennial Park	9:30:00 AM	-0.65			
6/14/2022	Fall River Bicentennial Park	1:45:00 PM	-2.57	-2.49	-2.80	1:42:00 AM
	Dighton Tricentennial Park	2:05:00 PM	-2.65			
	Fall River Bicentennial Park	8:35:00 PM	3.97	4.13	3.53	8:54:00 PM
	Dighton Tricentennial Park	8:50:00 PM	3.72			

To simulate the potential tidal range, the highest and lowest recorded water surface elevations at NOAA gauge #8447386 were reviewed over a 10-year period (Table 3-2). The highest elevation of 6.51' was removed from the data set as it coincides with Hurricane Sandy (10/29/2012).

The high elevations used to model effects of counterflow will be taken from the Taunton River FIS model.

Table 3-2 NOAA Gauge Highest and Lowest Values

Station: 8447386 Datum: NAVD (FT)
Fall River, MA
Date Range: 6/16/2012 to 6/16/2022

Rank	Highest (ft)	Highest Date		Lowest (ft)	Lowest Date
1	6.51	20121029		-4.83	20161216
2	5.09	20180303		-4.77	20190122
3	5.09	20180304		-4.69	20180106
4	4.92	20160209		-4.54	20150220
5	4.81	20150930		-4.42	20150221
6	4.77	20220102		-4.29	20210302
7	4.77	20120605		-4.27	20180106
8	4.71	20200508		-4.18	20160120
9	4.66	20180304		-4.14	20171229
10	4.59	20220117		-4.1	20170304

4.0 ENGINEERING METHODS

4.1 HYDROLOGIC ANALYSIS

Muddy Cove Brook is an ungauged rural stream, therefore peak discharges were estimated using the USGS Wandle Method from *Estimating Peak Discharges of Small Rural Streams in Massachusetts – USGS Water Supply Paper 2214.* The estimated results were compared with USGS StreamStats Peak-Flow Report. Muddy Cove Brook is fed upstream by various overland flows that span 2.92 sq. miles to the west, bound by Baker Road and Williams Street in Dighton, MA. Due to the lack of gauged river flows for the Muddy Brook Cove, the USGS StreamStats Peak-Flow Report flows were utilized in the HEC-RAS model. The water surface elevations for the Taunton River were obtained from the Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS) profiles for Bristol County, Massachusetts and from the tide gauge data.

Table 4.1 contains a summary of the discharges used in the analysis.

Table 4-1 – Summary of Peak Flood Discharges

Source	River/Reach Name	Drainage Area (mi^2)	10% Annual Chance [10-yr] (CFS)	4% Annual Chance [25-yr] (CFS)	2% Annual Chance [50-yr] (CFS)	1% Annual Chance [100-yr] (CFS)
StreamStats*	Muddy Cove Brook	2.92	136	182	220	260
StreamStats Upper (Plu)			276	383	478	582
WSP 2214			146.3	194.3	235.7	283.5

*The peak flows from StreamStats were utilized in the existing and proposed models.

The model's downstream water surface flood elevations for the 10 and 50 year reoccurrence intervals were taken from *FEMA Coastal Engineering Analysis – DFIRM Update for Coastal Analysis for Bristol County, MA (2012).* The Segreganset River at the Taunton River is summarized in the Table 4-2.

Table 4-2 – Taunton River Elevations

Frequency		Taunton River Elevation (FT) (NAVD88)
10-Yr	0.10	8.4
50-Yr	0.02	12.2

To ensure a bridge can withstand future changes in stream conditions, the FHWA suggests using "The Climate Change Indicator (CCI)" to establish analysis levels for risk and vulnerability assessments. The CCI measures the variation in the mean value of the T-year 24-hour precipitation from observed to projected conditions. This change serves as a valuable indicator for assessing potential alterations in flood flows due to projected climate change. Supporting documents and hydrologic calculations are including in Appendix C.

Table 4-3 – Climate Change Indicator Table

	10% AEP	4% AEP	2 % AEP	1% AEP
	10-Year	25-Year	50-Year	100-Year
$P_{24,T,O}$	5.08	6.12	6.91	7.73
$P_{24,T,O,U}$	6.26	7.79	8.92	10.30
RFB_p	1.18	1.19	1.19	1.19
$P_{24,T,P}$	5.99	7.28	8.22	9.20
CCI	0.77	0.70	0.65	0.57

The CCI range is between 0.4 and 0.8. Therefore, the upper limit Streamstats flow was chosen as the appropriate hydrologic method for analysis and design.

4.2 Hydraulic Analysis

4.2.1 Existing Conditions Model

An unsteady 2D analysis was performed using USACE HEC-RAS 6.2.0. Due to the non-linear flowpath, the SWE-Eulerian-Lagrangian method was used to perform the computations. The 2D model mesh area is approximately 11 acres and includes the river embankment and the geometry of the bridge structure. The bridge was added into the 2D model using an SA/2D Area Connection. The limits of the model extend 700' upstream and 60' downstream of the Pleasant Street bridge. An overview of the model can be seen in figures 4.1 and 4.2.

Pleasant Street is classified as a local roadway, MassDOT guidelines state that the desired minimum flood conveyance capacity should be set for the 10-year flood event, and the scour analyzed for the 25 and 50-year events. Designing the bridge to convey the 10-year flood event is impractical because the elevation of Pleasant Street is 8' +/- compared with the Taunton River 10-yr flood elevation of 8.4'. Widening the bridge will not improve the capacity.



Figure 4-1 - 2D HECRAS Model Overview – Plan View

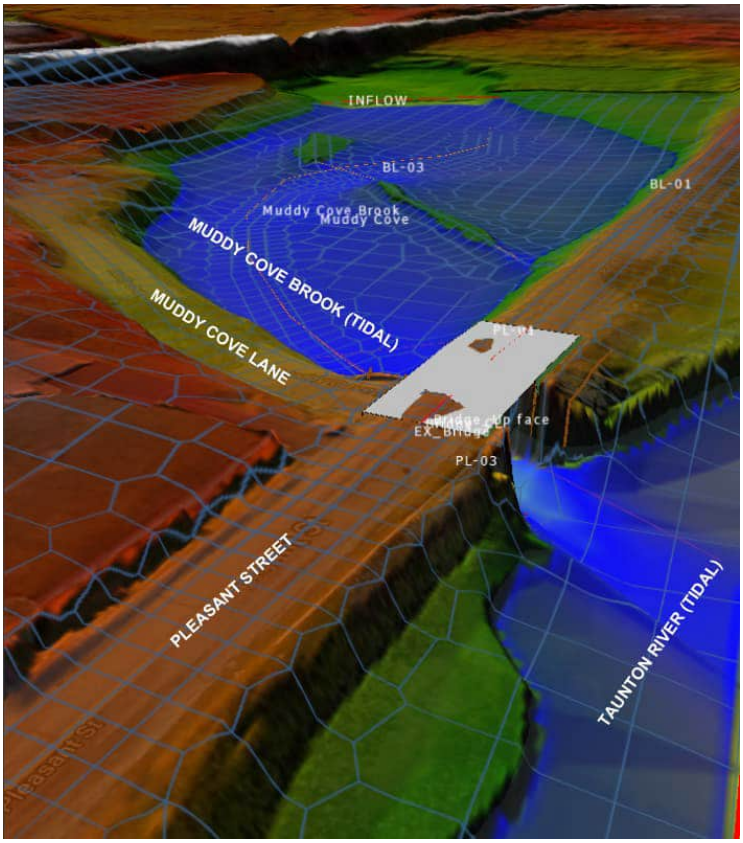


Figure 4-2 -2D HECRAS Model Overview

A variable stage hydrograph was set as the downstream boundary to simulate the tidal flow over a 24-hour period. The tidal range was chosen to be -4.83' to 5.09' from the historic data shown in Table 3.4 to simulate the largest variations in elevation.

The highest velocities through the Pleasant Street bridge occur when the downstream tide elevation is the lowest. To simulate the worst-case scenario, the model uses peak flow data from Streamstats as the Muddy Cove Brook upstream boundary condition and analyzed the resulting velocities through the bridge at low tide (-4.83'). The velocities should be considered conservative because the model assumes that the Muddy Cove Brook flood event happens prior to any rise in water surface elevation within the Taunton River. In reality, the Pleasant Street Bridge would be overtopped from the Taunton River during the 25-year and 50-year flood events.

The highest velocities in the system occur in the contracted section under the Pleasant Street Bridge, as represented by red in the velocity map in Figure 4.3.

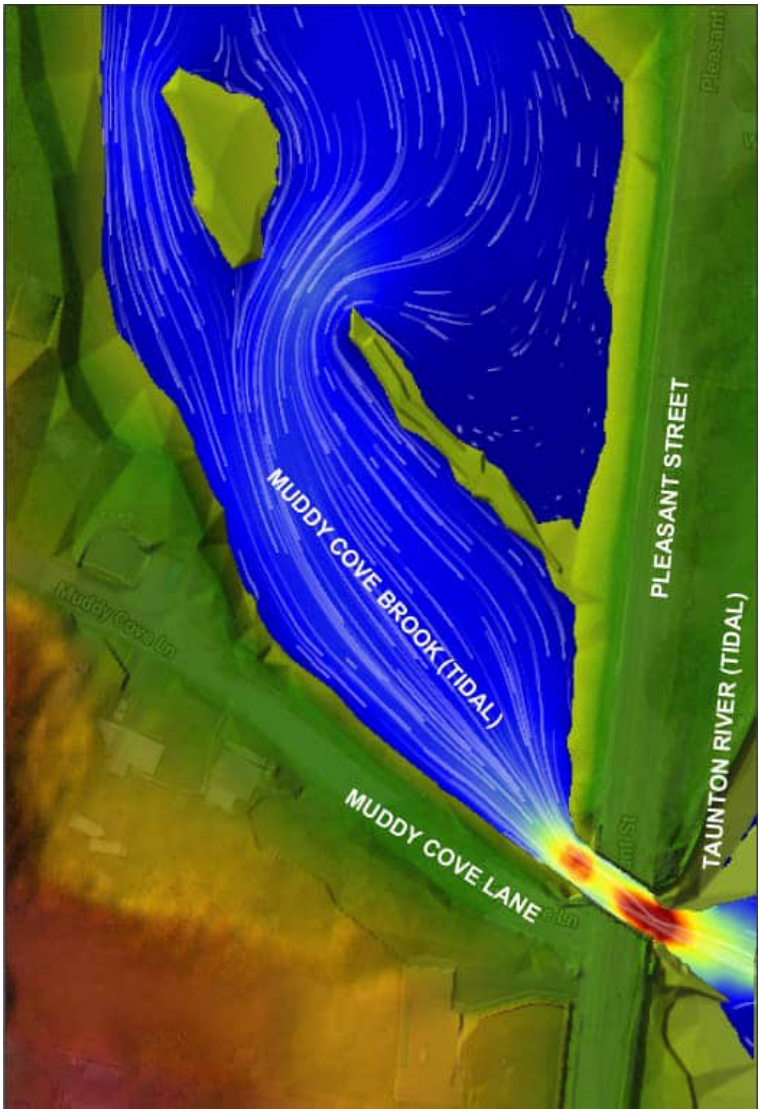


Figure 4-3 - 2D HEC-RAS Model Velocity Map

4.2.2 Proposed Conditions Model

The proposed bridge will consist of cast-in-place abutments and wingwalls founded on spread footings on piles. The proposed bridge is widened to the west for safety reasons related to stopping sight distance. The deck would overhang the beams by 8" on each side of the superstructure for a total out-to-out deck width of 40'-3". The span structure will be comprised of (4) precast concrete Next 24F deck beams, with an 8" reinforced concrete deck, and 3" HMA wearing surface. U-wingwalls at the northwest, northeast and southeast corners will be installed, with a splayed wingwall installed at the southwest corner. The new south and north abutments would be installed in the same location as the existing. The bridge's hydraulic opening at the stream bed will remain the same at 26'+/-. The proposed low chord elevation of the bridge will be 4.33'.

The proposed bridge geometry was analyzed using the same 2D methods as existing conditions. A counterflow model was also analyzed for the 50-year storm event to determine if the velocities and scour through the bridge would be greater if the Taunton River flooding causes Muddy Cover Brook to flow east to west. The results were determined to be significantly less than if Muddy Cove Brook flowed west to east. There will be no increase in flood water surface elevations caused by the bridge replacement.

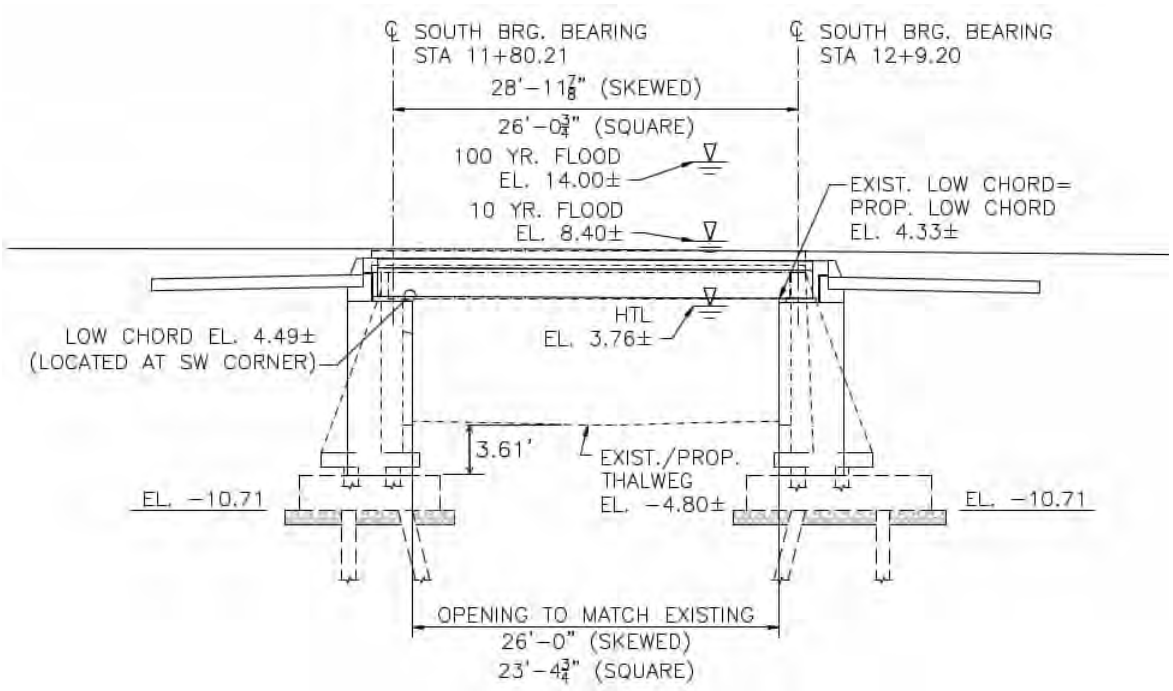


Figure 4-4 – Longitudinal Section

Table 4-4 – Summary of Hydraulic Performance

AEP [%]	Peak Flow (CFS)	Existing Velocity* (FT/S)	Proposed Velocity* (FT/S)	Taunton River Tailwater Elevation (FT)
10%	136	7.74	7.68	-4.83 (Lowtide)
10% (Upper)	276	9.74	9.76	-4.83 (Lowtide)
4%	182	8.59	8.60	-4.83 (Lowtide)
4% (Upper)	383	10.62	10.48	-4.83 (Lowtide)
2%	220	9.09	9.03	-4.83 (Lowtide)
2% (Upper)	478	11.78	11.99	-4.83 (Lowtide)
2% (COUNTERFLOW)	220	-	0.74	12.2 (2% FIS)

*Highest velocity in vicinity of the bridge

4.3 Scour Safety/Stability Analysis

In accordance with the MassDOT LRFD Bridge Manual guidance for a Local Roadway, the scour was analyzed for a 25-year storm event and countermeasures designed and checked for the 50-year storm event. See Appendix D for scour computations.

4.3.1 Long-Term Aggregate/Degradation

The MassDOT underwater inspection Report, performed on August 10, 2020, includes a scour monitoring chart which provides evidence that the stream bed has not experienced significant variation from 10/6/1993 to 8/10/2020. There is insufficient data available to calculate scour due to long-term aggradation and degradation. In the scour design and check analysis, it is assumed that the channel bed will not degrade over the life-span of the bridge.

4.3.2 Contraction Scour

Contraction Scour was calculated using Laursen's equation as recommended in FHWA HEC-18, "Evaluating Scour at Bridges". HECRAS data was used to determine whether the channel is in a live-bed or clear-water condition. For the 25-year and 50-year design storm, the channel operates in a clear-water condition. A summary of the predicted contraction scour is summarized in Table 4-5.

4.3.3 Local Abutment Scour

The local abutment scour was analyzed using the NHCRP 24-20 Equation. A summary of the results can be seen in Table 4-5.

4.3.4 Local Pier Scour

The existing and proposed bridges do not have piers.

4.3.5 Pressure Scour

Vertical contraction scour due to pressure flow conditions were evaluated because the low chord becomes submerges under 25 and 50-year flood events. The calculation of scour resulting from pressure

flow conditions was conducted at the time step of 16:00, corresponding to the peak water depth at the upstream face during this interval. A summary of the results can be seen in Table 4-5.

Table 4-5 – Summary of Calculated Bridge Scour

	Return Period (Year)	[1] Long Term Degradation (Feet)	[2] Contraction Scour (Feet)	[3] Pressure Scour (Feet)	[4] Worst Local Abutment Scour (Feet)
Existing Conditions (Time Step: 8:00)	Scour Design Flood (25-year)	N/A	1.10	N/A	4.60
	Scour Check Flood (50-year)	N/A	1.45	N/A	5.36
Existing Conditions (Time Step: 16:00)	Scour Design Flood (25-year)	N/A	0.00	0.00	0.00
	Scour Check Flood (50-year)	N/A	0.00	0.00	0.00
Existing Conditions (Upper Limit) (Time Step: 8:00)	Scour Design Flood (25-year)	N/A	3.03	N/A	8.30
	Scour Check Flood (50-year)	N/A	3.80	N/A	9.36
Existing Conditions (Upper Limit) (Time Step: 16:00)	Scour Design Flood (25-year)	N/A	0.00	0.72	1.34
	Scour Check Flood (50-year)	N/A	0.00	2.09	3.24

	Return Period	[1] Long Term Degradation	[2] Contraction Scour	[3] Pressure Scour	[4] Worst Local Abutment Scour
	(Year)	(Feet)	(Feet)	(Feet)	(Feet)
Proposed Conditions (Time Step: 8:00)	Scour Design Flood (25-year)	N/A	0.96	N/A	4.46
	Scour Check Flood (50-year)	N/A	1.24	N/A	4.94
Proposed Conditions (Time Step: 16:00)	Scour Design Flood (25-year)	N/A	0.00	0.00	0.00
	Scour Check Flood (50-year)	N/A	0.00	0.00	0.00
Proposed Conditions (Upper Limit) (Time Step: 8:00)	Scour Design Flood (25-year)	N/A	2.75	N/A	8.02
	Scour Check Flood (50-year)	N/A	3.61	N/A	9.17
Proposed Conditions (Upper Limit) (Time Step: 16:00)	Scour Design Flood (25-year)	N/A	0.00	0.72	1.37
	Scour Check Flood (50-year)	N/A	0.00	2.06	3.31

4.4 Scour Countermeasure Design

Scour countermeasures for the proposed bridge were sized using the Federal Highway Administration's Hydraulic Engineering Circular-23 (HEC-23) guidelines for Bridge Scour and Stream Instability Countermeasures. The placement of the countermeasures is in accordance with Section 2.6.5 of the MassDOT LRFD Bridge Manual. The riprap thickness has been set to 2.0-times the D50 Class III size.

The new abutments and footings will be constructed on piles. The unsupported pile length with be designed to withstand the 50-yr abutment scour. The elevation of the top of footing will be set at least 2.71' (the depth of 50-yr contraction scour) below the thalweg of the channel.

Existing riprap is in place on all 4 abutment corners. Proposed riprap will be placed for slope and stream stabilization in disturbed areas which currently contain riprap. The proposed size and class are shown in the table below.

Table 4-6 - Stream Stability Riprap Replacement Design

Alternative	Class #	Riprap Thickness (ft)	Riprap Extend along U/S and D/S of Embankment (ft)
Proposed	Class VI (D_{50}=21 in)	3.5	See Plans

5.0 Conclusions and Recommendations

5.1 Conclusions

Although the proposed bridge is designed with a different low chord elevation and geometry as compared to the existing bridge, the structure meets the hydraulic design criteria established in Sections 2.6 of the LRFD Bridge Manual.

These criteria include that the proposed bridge:

1. Will not cause significant changes to the waterway's existing flood regime.
2. Shall be designed without causing any increase in the waterway's base flood elevation profile.

5.2 Recommendations

The proposed improvements should maintain the geometry shown in BETA Group, Inc.'s Type Study (2024) and as modeled in HEC-RAS. If design plans change, the hydraulic and scour analysis should be reevaluated. The new top of abutment footing will be set below the existing thalweg at a distance equaling the sum of LTD and CS, as shown in MassDOT Bridge Manual Part 1 Figure 2.6.5-3. To counter the predicted scour at the bridge, the proposed improvements shall include designing the unsupported pile length to exceed the abutment scour depth for the 50-year storm. The existing upstream and downstream embankments are currently armored with riprap and will be reset as part of the project.

5.3 HYDRAULIC DATA TABLES

Table 5-1 HYDRAULIC DESIGN DATA	
Drainage Area	2.92 Square Miles
Design Flood Discharge	276 cfs
Design Flood Frequency	10% (10 Upper)
Design Flood Velocity	9.76 ft/s (Maximum)
Design Flood Elevation	8.4 Ft NAVD88 (Taunton River)
BASE (100-YEAR) FLOOD DATA	
Base Flood Discharge	582 cfs
Base Flood Elevation	14 ft NAVD88 (Taunton River)
SCOUR DESIGN FLOOD (SDF) EVENT DATA	
Design Scour Flood Event Return Frequency	4% (25 Upper)
Design Flood Abutment Scour Depth	8.02
Design Flood Maximum Scour Depth	8.02
SCOUR CHECK FLOOD (SCF) EVENT DATA	
Check Scour Flood Event Return Frequency	2% (50 Upper)
Check Flood Abutment Scour Depth	9.17
Check Flood Maximum Scour Depth	9.17
FLOOD OF RECORD	
Discharge	UNKNOWN
Frequency	>100
Maximum Elevation	UNKNOWN
Date	1938, 1954, 1955
History of Ice Floes	None Documented
Evidence of Scour and Erosion	Scour Documented at South Curtain wall

6.0 REFERENCES

6.1 DATA SOURCES

Data Type	Source	Details
Pleasant Street and Muddy Cove Lane Survey	Chappell Engineering Associates, LLC (2022)	
Type Study Analysis	BETA Group, Inc. (2024)	
USGS Map	MassGIS (2012)	
Aerial Mapping	Nearmap (2022)	
FEMA Flood Insurance Rate Map for Bristol County	FEMA (July 16, 2014)	Muddy Cove Brook FIRM Map No. 25005C0261G
FEMA Coastal Analysis	FEMA (2012)	DFIRM Update for Coastal Analysis for Bristol County, MA
StreamStats Report	USGS (2022)	Workspace IDs: MA20220603151425429000
Web Soil Survey	USDA-NRCS (2022)	
LIDAR	2021 USGS Topobathymetric Model (1887-2016)	State Plan 1983, NAVD88
Tide Data	NOAA (2022)	Fall River, MA (8447386)

The analysis sites the following references:

Federal Highway Administration (2012) "Evaluating Scour at Bridges", Hydraulic Engineering Circular No. 18 (HEC-18), Fifth Edition, U.S. Department of Transportation. April 2012.

Federal Highway Administration (2009) "Bridge Scour and Stream Instability Countermeasures Experience, Selection, and Design Guidance Third Edition, Volume 2", Hydraulic Engineering Circular No. 23 (HEC-23), U.S. Department of Transportation. April 2012

LRFD Bridge Manual – Hundredth Anniversary Editon (2024 Revision). Retrieved from https://www.mass.gov/info-details/part-i-design-guidelines

NOAA, 2018. NOAA Atlas 14: Precipitation-Frequency Atlas of the United States. National Oceanic and Atmospheric Administration, Washington, DC.

United States Army Corps of Engineers (2023) "HEC-RAS River Analysis System – Version 6.4.1", Hydrologic Engineering Center, US Army Corps of Engineers, Davis CA.

United States Department of Agriculture (1986) "Urban Hydrology for Small Watersheds", Technical Release 55, National Resources Conservation Service, Conservation Engineering Division, June 1986.

Wandle, William, 1983, United States Geological Survey Water-Supply Paper 2214 - Estimating Peak Discharges of Small, Rural Streams In Massachusetts. U.S. Geological Survey.

Zarriello, P. J., 2017. Magnitude of Flood Flows at Selected Annual Exceedance Probabilities for Streams in Massachusetts (Https://Doi.Org/10.3133/Sir20165156). U.S. Geological Survey Scientific Investigations Report 2016–5156.

APPENDIX A

MASSDOT BRIDGE INSPECTION

2-DIST	B.I.N.
05	3L9

UNDERWATER OPERATIONS TEAM
ROUTINE UNDERWATER INSPECTION REPORT

BR. DEPT. NO.: D-08-002

CITY/TOWN	8-STRUCTURE NO.	LEVEL OF INSPECTION	93B-DATE INSPECTED
DIGHTON	D08002-3L9-MUN-NBI	II	AUG 10, 2020

07-FACILITY CARRIED	ACCESS TO BRIDGE	UNDERWATER OPERATIONS ENGINEER
HWY PLEASANT ST	EMBANKMENT	RANDI E. BONICA

06-FEATURES INTERSECTED	DEPTH	VISIBILITY	TEAM LEADER (DIVE MASTER)	*Report submitted by:*
WATER MUDDY COVE BROOK	1.5 m	0.5 m	WILLIAM J. COLLERAN	

BOTTOM CONDITION	CURRENT	TEAM MEMBERS
SHELLS, DUMPED STONE	TIDAL	R. E. BONICA, G. BROZ, B. FITZGERALD, M. LEMIRE

ITEM 60 *SUBSTRUCTURE* — 7

		DEF
1. Abutments	7	
a. Pedestals	N	-
b. Bridge Seats	N	-
c. Backwalls	N	-
d. Breastwalls	H	-
e. Wingwalls	H	-
f. Slope Paving/Rip-Rap	7	-
g. Pointing	N	-
h. Footings	H	-
i. Piles	H	-
j. Scour	7	-
k. Settlement	7	-
l. Curtain Wall	6	-
2. Piers or Bents	N	
a. Pedestals	N	-
b. Caps	N	-
c. Columns	N	-
d. Stems/Webs/Pierwalls	N	-
e. Pointing	N	-
f. Footing	N	-
g. Piles	N	-
h. Scour	N	-
i. Settlement	N	-
j.	N	-
k.	N	-
3. Pile Bents	N	
a. Pile Caps	N	-
b. Piles	N	-
c. Diagonal Bracing	N	-
d. Horizontal Bracing	N	-
e. Fasteners	N	-
UNDERMINING (Y/N)		N

ITEM 61 *CHANNEL & CHANNEL PROTECTION* — 6

		DEF
1. Channel Scour	6	-
2. Embankment Erosion	6	-
3. Debris	7	-
4. Vegetation	7	-
5. Utilities	N	-
6. Rip-Rap/Slope Protection	7	-
7. Aggradation	8	-
8. Fender System	N	-
a. Piles	N	-
b. Diagonal Bracing	N	-
c. Horizontal Bracing	N	-
d. Wales	N	-
e. Fasteners	N	-
f. Ladders	N	-
9.	N	-

ITEM 59 *SUPERSTRUCTURE*

		DEF
	N	-
	N	-
	N	-

ITEM 62 *CULVERTS* — N

		DEF
1. Roof	N	-
2. Floor	N	-
3. Walls	N	-
4. Headwall	N	-
5. Wingwall	N	-
6. Pipe	N	-
7. Protective Coating	N	-
8. Embankment	N	-
9. Wearing Surface	N	-
10. Railing	N	-
11. Sidewalks	N	-
12. Utilities	N	-
13. Member Alignment	N	-
14. Deformation	N	-
15. Scour	N	-
16. Settlement	N	-
17.	N	-
18.	N	-
UNDERMINING (Y/N)		N

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor — Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor scouring, etc.

S= Severe/Major Deficiency- — Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroding rebars, Deteriorated timber piles, Considerable settlement, Considerable scouring or undermining, etc.

C-S= Critical Structural Deficiency- A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency- A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Any part of piles or fender system which are projecting outward and may become a safety hazard for the navigational traffic, etc.

URGENCY OF REPAIR:

I=Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her.]

A=ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the responsible party (if not a State owned bridge) upon receipt of the Inspection Report.]

P=Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available.]

X=UNKNOWN **N=NOT APPLICABLE** **H=HIDDEN/INACCESSIBLE** **R=REMOVED**

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
DIGHTON	**3L9**	**D-08-002**	**D08002-3L9-MUN-NBI**	**AUG 10, 2020**

REMARKS

GENERAL REMARKS

This bridge is a single span structure with concrete abutments hidden behind concrete curtain walls, added around 1949. The date on the bridge is 1914.

Orientation:

Pleasant St. runs North and South and broad Cove flows West to East on outgoing tide.
Abutments are labeled left and right, looking downstream.
Sta 10+00 is at the upstream end. The downstream end is Sta 10+41.5.

Note: Bridge should be inspected on an incoming tide due to potential pollution at the site.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments

Item 60.1.e - Wingwalls

Left Abutment:

There is a 1/16" wide crack in the upstream wingwall starting 2' above the curtain wall and continuing 2' down in the curtain wall, 1' from the corner with the breastwall.
At Sta 10+41.5 (downstream end) there is a 0.1' vertical crack with spalling in the breastwall from the bridge seat through the curtain wall to the mudline.

Right Abutment:

There is a 1/2" crack with spalling from the top of the downstream wingwall down through the curtain wall to the mudline, 1' from the corner with the breastwall.

Item 60.1.h - Footings

The footings are not exposed. They are approximately 1.5' below the mudline at the left abutment and 2.5' below the mudline at the right abutment (by plan).

Item 60.1.i - Piles

According to plans on file from 1914 and 1947 bridge appears to be founded on piles.

Item 60.1.j - Scour

There is a 0.6'-0.7' wide concrete curtain wall extending along the entire length of the breastwalls and along the wingwalls. The bottom of the curtain wall is 7.5' below the bottom of the fascia beam (by plan).
There are random areas of timber formwork exposed where the bottom of the curtain wall is exposed.

Left Abutment:

The curtain wall is undermined from Sta 10+11 to the downstream end (Sta 10+41.5). The maximum height under curtain wall is 1.5' and the maximum penetration is 0.9'. The curtain wall is 0.7' wide at this location so there is a penetration of 0.2' into the breastwall.

Item 60.1.l - Curtain Wall

There is a 0.6'-0.7' wide concrete curtain wall extending along the entire length of the breastwalls and along the wingwalls. The bottom of the curtain wall is 7.5' below the bottom of the fascia beam (by plan).
There are random areas of timber formwork exposed where the bottom of the curtain wall is exposed.
There are random areas of concrete deterioration (ratholes) in the curtain wall.
There is coarse aggregate exposed from the top of the curtain walls to the mudline. There are cracks in the curtain walls that are only visible above heavy abrasion and barnacles.

Left Abutment:

There are random areas of deterioration with a maximum penetration of 0.6'.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
DIGHTON	**3L9**	**D-08-002**	**D08002-3L9-MUN-NBI**	**AUG 10, 2020**

REMARKS

The curtain wall is undermined from Sta 10+11 to Sta 10+41.5 (downstream end). The maximum height under curtain wall is 1.5' and the maximum penetration is 0.9'. The curtain wall is 0.7' wide at this location so there is a penetration of 0.2' into the breastwall.
There is a 1/16" wide crack in the upstream wingwall starting 12' above the curtain wall and continuing 2' down in the curtain wall, 1' from the corner with the breastwall.
At Sta 10+01 there is a 1/16" wide vertical crack from the top of the curtain wall to 1' below the top of the curtain wall.
At Sta 10+41.5 (downstream end) there is a 0.1' vertical crack with spalling in the breastwall from the bridge seat through the curtain wall to the mudline.

Right Abutment:
There are random areas of deterioration with a maximum penetration of 0.3'.
At Sta 9+98 there is a 1/8" wide vertical crack from the top of the curtain wall to 1' below the top of the curtain wall.
At Sta 10+00 there is a 1/2" wide vertical crack with spalling from the top of the curtain wall to 3' below the top of the curtain wall.
At Sta 10+29 there is a 1/2" wide vertical crack with spalling from the top of the curtain wall to 1.5' below the top of the curtain wall.
At Sta 10+36 there is a hairline vertical crack from the top of the curtain wall to 1.5' below the top of the curtain wall.
There is a 1/2" crack with spalling from the top of the downstream wingwall down through the curtain wall to the mudline, 1' from the corner with the breastwall.

ITEM 61 - CHANNEL AND CHANNEL PROTECTION

Item 61.1 - Channel Scour
There is a 0.6'-0.7' wide concrete curtain wall extending along the entire length of the breastwalls and along the wingwalls. The bottom of the curtain wall is 7.5' below the bottom of the fascia beam (by plan).
There are random areas of timber formwork exposed where the bottom of the curtain wall is exposed.

Left Abutment:
The curtain wall is undermined from Sta 10+11 to Sta 10+41.5 (downstream end). The maximum height under curtain wall is 1.5' and the maximum penetration is 0.9'. The curtain wall is 0.7' wide at this location so there is a penetration of 0.2' into the breastwall.

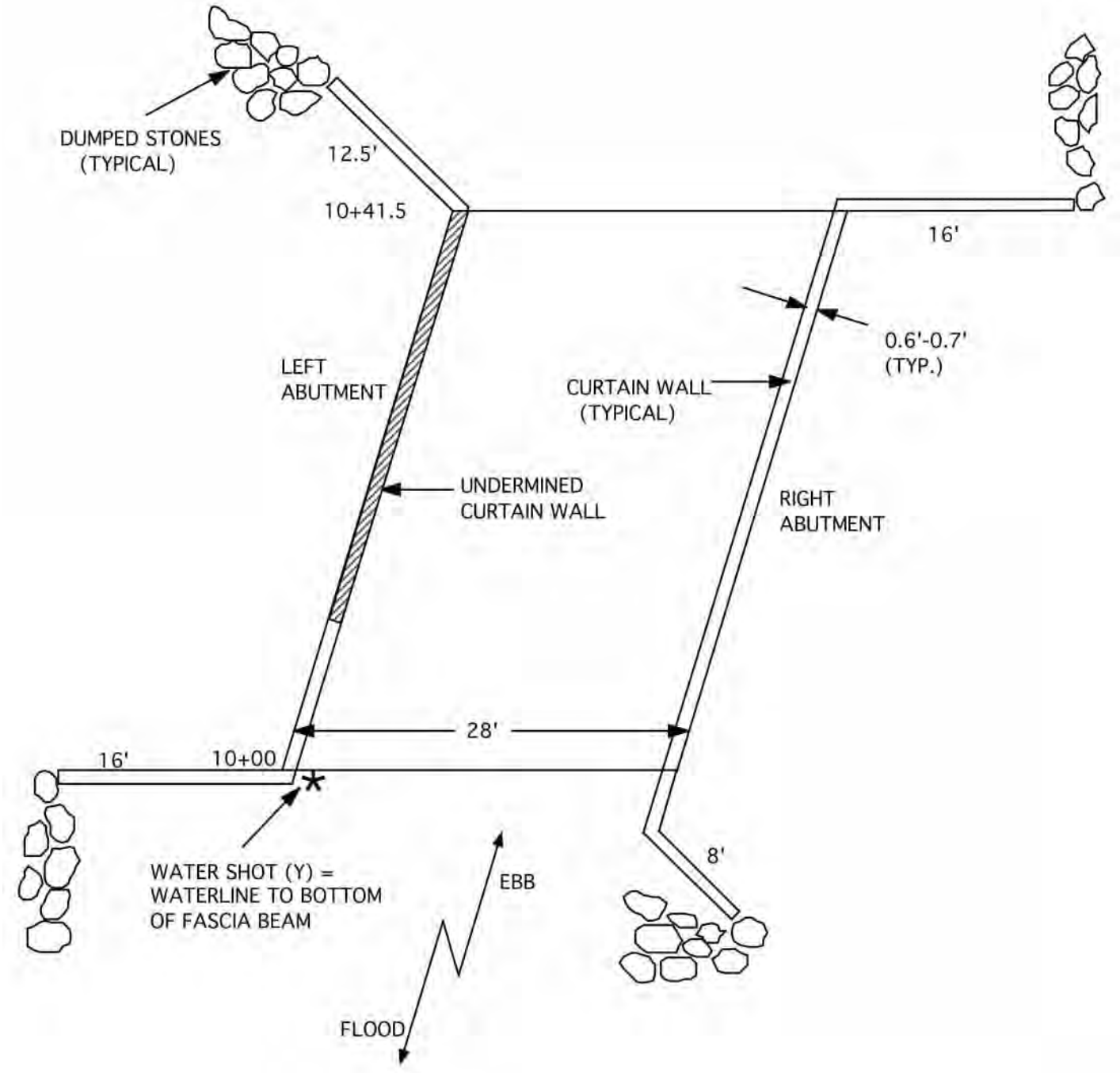
Item 61.2 - Embankment Erosion
There is minor erosion at the upstream left embankment due to roadway runoff.

Item 61.3 - Debris
There are random cut-off piles approximately 3' off the left abutment at the upstream end.

Sketch / Chart Log
Sketch 1 : PLAN VIEW - NOT TO SCALE
Chart 1 : SCOUR MONITORING CHART

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
DIGHTON	**3L9**	**D-08-002**	**D08002-3L9-MUN-NBI**	**AUG 10, 2020**

SKETCHES



Sketch 1: PLAN VIEW - NOT TO SCALE

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
DIGHTON	**3L9**	**D-08-002**	**D08002-3L9-MUN-NBI**	**AUG 10, 2020**

CHARTS

	10/6/93	10/11/96	9/17/99	9/6/02	9/15/05	10/3/11	9/2/14	9/8/16
UPSTREAM END								
LEFT ABUTMENT	3.3'	3.3'	3.3'	3.3'	3.2'	3.3'	3.4'	3.0'
C/L SPAN	6.2'	4.6'	4.6'	4.6'	4.1'	4.6'	4.5'	4.6'
RIGHT ABUTMENT	3.6'	3.6'	2.6'	3.3'	2.1'	2.9'	2.7'	3.2'
DOWNSTREAM END								
LEFT ABUTMENT	3.6'	3.9'	3.6'	3.9'	3.2'	3.1'	3.2'	3.0'
C/L SPAN	5.6'	5.6'	5.6'	5.6'	5.5'	4.7'	5.6'	5.6'
RIGHT ABUTMENT	4.3'	4.6'	4.3'	4.6'	4.4'	4.3'	5.0'	4.9'
Y	3.8'	5.3'	5.4'	5.1'	6.9'	1.8'	4.3'	3.4'
CORRECTION FACTOR	—	+1.5'	+1.6'	+1.3'	+3.1'	-2.0'	+0.5'	-0.4'

	9/11/18	8/10/20						
UPSTREAM END								
LEFT ABUTMENT	3.4'	3.3'						
C/L SPAN	4.6'	4.4'						
RIGHT ABUTMENT	3.3'	3.2'						
DOWNSTREAM END								
LEFT ABUTMENT	3.2'	3.1'						
C/L SPAN	5.5'	5.4'						
RIGHT ABUTMENT	4.4'	4.9'						
Y	5.3'	4.3'						
CORRECTION FACTOR	+1.5'	+0.5'						

NOTES:
1. WATER SHOT (Y) = WATERLINE TO BOTTOM OF FASCIA BEAM AT STA 10+00 AT LEFT ABUTMENT.
2. SOUNDINGS ADJUSTED TO 10/6/93 WATERLINE WITH CORRECTION FACTOR.
3. STA 10+00 IS AT THE UPSTREAM END.

Chart 1: SCOUR MONITORING CHART

Report Date: March 9, 2024 Proposal No. 613636-136482

State Information

BDEPT#= D08002 Agency Br.No.
Town= Dighton L.O.
B.I.N= **3L9** AASHTO= 067.7
RANK= 2262 H.I.= 80.1 % FHWA Select List= N (6/21/2017)

Identification

(8) Structure Number	D080023L9MUNNBI
(5) Inventory Route	151000000
(2) State Highway Department District	05
(3) County Code 005 (4) Place code	16950
(6) Features Intersected	**WATER MUDDY COVE BROOK**
(7) Facility Carried	**HWY PLEASANT ST**
(9) Location	AT INT OF MUDDY COVE LN
(11) Kilometerpoint	0000.579
(12) Base Highway Network	N
(13) LRS Inventory Route & Subroute	000000000000
(16) Latitude	41 DEG 48 MIN 34.32 SEC
(17) Longitude	71 DEG 07 MIN 10.88 SEC
(98) Border Bridge State Code	Share %
(99) Border Bridge Structure No. #	

Structure Type and Material

(43) Structure Type Main: Concrete Code 104
Tee Beam Jointless bridge type: RIGID FRAME
(44) Structure Type Appr:
Other Code 000
(45) Number of spans in main unit 001
(46) Number of approach spans 0000
(107) Deck Structure Type - Concrete Cast-in-Place Code 1
(108) Wearing Surface / Protective System:
A) Type of wearing surface - Bituminous Code 6
B) Type of membrane - Unknown Code 8
C) Type of deck protection - Unknown Code 8

Age and Service

(27) Year Built	1914
(106) Year Reconstructed	1949
(42) Type of Service: On - Highway Under - Waterway	Code 15
(28) Lanes: On Structure 02 Under structure	00
(29) Average Daily Traffic	001400
(30) Year of ADT 2022 (109) Truck ADT	00 %
(19) Bypass, detour length	002 KM

Geometric Data

(48) Length of maximum span	0008.5 M
(49) Structure Length	00009.2 M
(50) Curb or sidewalk: Left 00.0 M Right	00.0 M
(51) Bridge Roadway Width Curb to Curb	009.7 M
(52) Deck Width Out to Out	010.9 M
(32) Approach Roadway Width (w/shoulders)	007.9 M
(33) Bridge Median - No median	Code 0
(34) Skew 27 DEG (35) Structure Flared	N
(10) Inventory Route MIN Vert Clear	99.99 M
(47) Inventory Route Total Horiz Clear	09.7 M
(53) Min Vert Clear Over Bridge Rdwy	99.99 M
(54) Min Vert Underclear ref N	00.00 M
(55) Min Lat Underclear RT ref N	00.0 M
(56) Min Lat Underclear LT	00.0 M

Navigation Data

(38) Navigation Control - No navigation control on waterway	Code 0
(111) Pier Protection	Code
(39) Navigation Vertical Clearance	000.0 M
(116) Vert-lift Bridge Nav Min Vert Clear	M
(40) Navigation Horizontal Clearance	0000.0 M

Classification

	Code
(112) NBIS Bridge Length	Y
(104) Highway System	N
(26) Functional Class - Urban Local	19
(100) Defense Highway	0
(101) Parallel Structure	N
(102) Direction of Traffic - 2-way traffic	2
(103) Temporary Structure	N
(105) Federal Lands Highways	0
(110) Designated National Network	N
(20) Toll - On free road	3
(21) Maintain - Town Agency	03
(22) Owner - Town Agency	03
(37) Historical Significance undetermined	

Condition

	Code
(58) Deck	5
(59) Superstructure	5
(60) Substructure	5
(61) Channel & Channel Protection	6
(62) Culverts	N

Load Rating and Posting

	Code
(31) Design Load - Unknown	0
(63) Operating Rating Method - Load Factor (LF)	1
(64) Operating Rating	31.6
(65) Inventory Rating Method - Load Factor (LF)	1
(66) Inventory Rating	18.9
(70) Bridge Posting	4
(41) Structure - Posted for load	P

Appraisal

	Code
(67) Structural Evaluation	5
(68) Deck Geometry	5
(69) Underclearances, vert. and horiz.	N
(71) Waterway adequacy	6
(72) Approach Roadway Alignment	7
(36) Traffic Safety Features	0 0 0 0
(113) Scour Critical Bridges	5

Inspections

(90) Inspection Date 03/25/22 (91) Frequency 24 MO
(92) Critical Feature Inspection: (93) CFI DATE

(A) Fracture Critical Detail	N	00	MO A)	00/00/00
(B) Underwater Inspection	Y	36	MO B)	08/10/20
(C) Other Special Inspection	N	00	MO C)	00/00/00
(*) Other Inspection (Flood Insp.)	N	00	MO *)	10/18/05
(*) Closed Bridge	N	00	MO *)	00/00/00
(*) UW Special Inspection	N	00	MO *)	00/00/00
(*) Damage Inspection			MO *)	00/00/00

Rating Loads

Report Date 08/01/22	H20	Type 3	Type 3S2	Type HS
Operating	28.0	35.0	55.0	39.0
Inventory	13.0	17.0	26.0	18.0

Field Posting

Status POSTED Posting Date 08/12/22

	2 Axle	3 Axle	5 Axle	Single
Actual	07	15	23	
Recommended	07	15	23	

Missing Signs N

Misc.

Bridge Name
N Anti-missile fence N Acrow Panel Y Jointless Bridge
Freeze/Thaw N : Not Applicable
Stairs On/Adjacent 0 Stair Owner(s)

Accessibility (Needed/Used)

N / N Liftbucket	N / N Rigging	P / Y Other
P / N Ladder	N / N Staging	KAYAK
N / N Boat	N / N Traffic Control	
Y / Y Wader	N / N RR Flagperson	Inspection Hours: 024
N / N Inspector 50	N / N Police	

APPENDIX B

FEMA DATA

Summary Report of Coastal Engineering Analyses

DFIRM Update for Coastal Analysis for Bristol County, MA

Task Order 1 - Coastal Hazard Analysis Deliverable

Prepared by

Flood Insurance Studies Throughout FEMA Region I

Contract No. HSFEHQ-09-D-0370

Task Order 4

November 19, 2012

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Section 3 References

Section 1
Project Summary

1.1 Introduction

The purpose of this report is to summarize the coastal hydrologic and hydraulic analyses for the Bristol County, Massachusetts Digital Flood Insurance Rate Map (DFIRM) Study. The coastal analysis establishes the flood elevations for selected recurrence intervals in the coastal area, namely the City of Fall River and the Towns of Berkley, Dighton, Freetown, Somerset, and Swansea. Additionally, backwater areas in the Towns of Rehoboth and Seekonk were updated based on new coastal analyses conducted in adjacent counties. The coastal engineering analyses were performed using methodologies described in the "Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update" (FEMA, 2007) to Appendix D and "Guidance for Coastal Flooding Analyses and Mapping" (FEMA, 2003), referenced hereafter as the FEMA Guidelines and Specifications. Supporting files can be found in the digital data included in the coastal data submittal compiled per guidance in Appendix M (FEMA, 2011) of the FEMA Guidelines and Specifications.

The 10-year (10-percent), 50-year (2-percent), 100-year (1-percent) and 500-year (0.2-percent) annual-chance stillwater elevations were taken from the effective FIS report (FEMA, 2009), as they were determined to be the most appropriate for use in this updated coastal analysis. Overland wave heights were calculated for restricted and unrestricted fetch settings using the Wave Height Analysis for Flood Insurance Studies (WHAFIS) software, Version 4.0 (Divoky, 2007), within the Coastal Hazard Analysis for Mapping Program (CHAMP) Version 2.0 (FEMA, 2007b), following the methodology described in the FEMA Guidelines and Specifications for each coastal transect. Input data for the CHAMP analyses was calculated in standardized calculation worksheets developed using Mathcad software (Parametric Technology Corporation, 2007). A limit of moderate wave action (LiMWA) was determined for all areas subject to significant wave attack in accordance with "Procedure Memorandum No. 50 – Policy and Procedures for Identifying and Mapping Areas Subject to Wave Heights Greater than 1.5 feet as an Informational Layer on Flood Insurance Rate Maps (FIRMS)" (FEMA, 2008). Wave runup was calculated using methods from the Shore Protection Manual (SPM), Technical Advisory Committee for Water Retaining Structures (TAW), and RUNUP 2.0 as described in the FEMA Guidelines and Specifications.

1.2 County Map of Coverage Area

Bristol County is located in southeastern Massachusetts. There are four cities and sixteen towns in Bristol County. The Cities of Attleboro and Taunton and the Towns of North Attleborough, Mansfield, Easton, Norton, and Raynham are located in northern Bristol County. The City of Fall River and the Towns of Seekonk, Rehoboth, Dighton, Berkley, Swansea, Somerset, and Freetown are located in the central portion of the County. The City of New Bedford and the Towns of Westport, Dartmouth, Acushnet, and Fairhaven are located in the southern portion of the County.

Bristol County is bordered on the north by Norfolk County, Massachusetts and on the east by Plymouth County, Massachusetts. It is bordered on the west by Providence, Bristol, and Newport counties in Rhode Island. Bristol County is bordered on the south and southeast by the Rhode Island Sound and Buzzards Bay, and on portions of the west by Narragansett Bay and Mt. Hope Bay.

This updated coastal analysis was conducted in and around the City of Fall River, and the Towns of Berkley, Dighton, Freetown, Somerset, and Swansea. Results from new coastal analyses conducted in Bristol County, Rhode Island (FEMA, 2012) were also included on the revised DFIRMs as part of this study. This included Heath Brook in Swansea and the Palmer River in Rehoboth, Seekonk, and Swansea. Note that the coastal analysis conducted for Providence County, Rhode Island (FEMA, 2012b) did not change the current elevations mapped on the Runnins River in Bristol County. **Figure 1** shows the map of Bristol County, Massachusetts; yellow FIRM panels represent those being revised as a result of this analysis.

According to the U.S. Census Bureau, the population of Bristol County was 548,285 in 2010, and the total area was 691 square miles, including 138 square miles of water (U.S. Census Bureau, 2012).

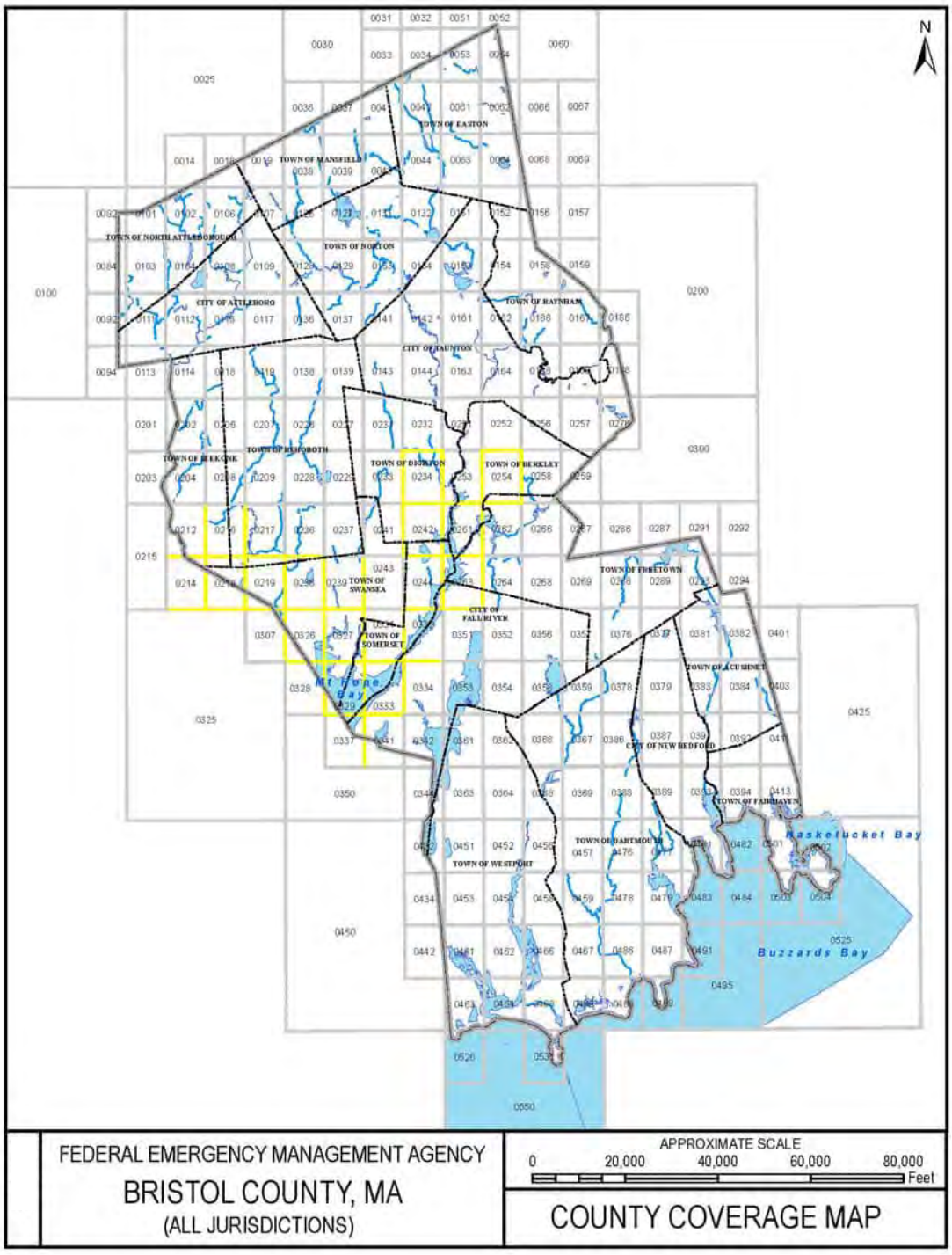


Figure 1 County Map of Coverage Area

Section 2
Engineering Analyses

The coastal flooding analysis consisted of data gathering and review and wave setup, wave height and propagation, erosion, and wave runup analysis and modeling.

2.1 Data Acquisition

2.1.1 Transect Survey Data

A transect survey was performed in Swansea, Somerset, and Fall River within Bristol County, at a total of nine separate locations. The survey was performed by Green International Affiliates in June 2011 and submitted on July 5, 2011. The coastal survey also identified coastal structures, including structure type, structure toe and top locations, height and material.

2.1.2 Field Inspection Data

A coastal field inspection was conducted from May 2 to May 6, 2011. Georeferenced GPS points and tracks, as well as photographs, were collected and attributed with various descriptive information, such as upland type, coastal formations including dunes and bluffs, coastal vegetation, coastal structures and shore type.

2.1.3 Coastline Data

The coastline was developed from the 0-foot LiDAR elevation contour developed as detailed in Section 2.2.1 for Mount Hope Bay and the Taunton River. The coastline was used as a guide in laying out transects and in determining the starting point of each transect.

2.1.4 Coastal Structures

Coastal structures such as seawalls and revetments were identified by the transect survey and field inspection. Data gathered for coastal structures was then digitized using the orthophotography and LiDAR TINs. The coastal structures GIS shapefile can be found in the digital data files compiled for the coastal submittal.

2.2 Base Maps and Supplemental Materials

The following supplemental materials have been compiled for use during the coastal analysis.

- Topographic Maps
- Bathymetric Data
- Base Maps
- Aerial Photographs

2.2.1 Topographic and Bathymetric Data

The topographic data for Bristol County was received from Photo Science in January 2012 based on Light Detection and Ranging (LiDAR) data. The deliverable consisted of the LiDAR data, a Digital Elevation Model (DEM), and other supporting documentation. Two-foot contours were created from the supplied DEM.

The LiDAR data does not cover areas below the water surface; therefore, bathymetry data (area below the NAVD datum) was downloaded from the NOAA website.

2.2.2 Base Maps and Orthophotography

Base map data was originally produced by Dewberry & Davis for the FEMA Map Modernization Project and provided for use by FEMA. Political and transportation features were updated based on the most current available data provided by MassGIS.

MassGIS High Resolution orthophotography was used for the coastal analysis. The orthophotographs were produced from 15-centimeter and 30-centimeter pixel cells from photography dated April 2008 and March and April 2009. The North American Datum of 1983 (NAD 83) was used as the horizontal datum.

2.3 Hydrology

2.3.1 Stillwater Elevation

The stillwater elevation (SWEL) is the elevation of the water due to effects of astronomic tides and storm surge on the water surface. Several previous studies were reviewed to determine the most appropriate SWEL values to use in the Bristol County coastal analysis, including:

- City of Fall River, Massachusetts FIS (FEMA, 1983)
- Bristol County, Massachusetts Effective FIS (FEMA, 2009)
- "Tidal Flood Profiles, New England Coastline" (USACE, 1988)
- "Updating Tidal Profiles for the New England Coastline" (Map Mod, 2008)
- "Updated Tidal Profiles for the New England Coastline" (STARR, 2012)

After consulting with FEMA Region I, it was decided that the 10-percent, 2-percent, 1-percent, and 0.2-percent-annual-chance stillwater elevations should be taken from the effective FIS for Bristol County, Massachusetts. These elevations are summarized in **Table 1**. Additionally, the stillwater elevations determined from the Bristol County, Rhode Island study (FEMA, 2012), which were used to update Heath Brook and the Palmer River in Bristol County, Massachusetts, are also summarized in **Table 1**.

Table 1: Summary of Coastal Stillwater Elevations

	Elevations (NAVD 88)			
Flooding Source and Location	**10-percent-annual-chance**	**2-percent-annual-chance**	**1-percent-annual-chance**	**0.2-percent-annual-chance**
ASSONET RIVER				
In Berkley	8.4	12.2	13.8	17.6
COLE RIVER				
Below Milford Pond Dam	8.4	12.3	13.9	17.6
HEATH BROOK				
At the downstream Swansea Corporate Limits	6.8	9.6	11.6	18.1
LEE RIVER				
Entire length within Somerset and Swansea	8.4	12.3	13.9	17.6
MOUNT HOPE BAY				
Entire length	8.4	12.3	13.9	17.6
PALMER RIVER				
From the downstream Swansea Corporate Limits to Interstate 195	6.6	9.5	11.3	17.9
Upstream of Interstate 195	5.9	8.2	9.2	12.2
RUNNINS RIVER				
Seekonk	5.8	7.9	9.2	12.2
SEGREGANSET RIVER				
At Taunton River	8.4	12.2	13.8	17.6
TAUNTON RIVER				
At Assonet River	8.4	12.2	13.8	17.6

2.3.2 Initial Wave Information

The energy-based significant wave height (H_{mo}) and peak wave period (T_p) are used as inputs to wave setup and wave runup calculations and were calculated using the Steady-State Spectral Wave Model (STWAVE). STWAVE is a phased-averaged spectral wave model that simulates depth-induced wave refraction and shoaling, depth- and steepness-induced wave breaking, diffraction, wind-wave growth, and wave-wave interaction and white capping that redistribute and dissipate energy in a growing wave field. The model accepts a spectral form of the wave as an input condition and provides H_{mo} and T_p results over the gridded model domain.

2.4 Hydraulics

2.4.1 Methodology and Procedures

Wave height is the distance from the wave trough to the wave crest. The height of a wave is dependent upon wind speed and duration, water depth and length of fetch. Offshore

(deepwater) wave heights, wave setup, and wave runup for each transect were calculated using Mathcad sheets developed by STARR to apply methodologies from the Coastal Engineering Manual (USACE, 2008) and FEMA Guidelines and Specifications (2007). Methodologies for each type of calculation are discussed in more detail below. Results from the Mathcad calculations performed for each transect were compiled in a summary spreadsheet.

Overland wave heights were calculated for restricted and unrestricted fetch settings using the Wave Height Analysis for Flood Insurance Studies (WHAFIS), Version 4.0 (Divoky 2007), within the Coastal Hazard Analysis for Mapping Program (CHAMP), following the methodology described in the FEMA Guidelines and Specifications (2007) for each coastal transect.

The general working procedure included eight steps: 1) laying out transects; 2) determining off-shore significant wave heights and corresponding wave periods from STWAVE outputs; 3) performing the off-shore engineering analysis; 4) preparing WHAFIS input data and populating the CHAMP database; 5) performing erosion analysis for erodible transects without a coastal structure; 6) performing WHAFIS modeling runs on eroded transects and transects with both intact and failed structures, as applicable; 7) performing wave runup analysis on intact and failed structures; and 8) identifying primary frontal dunes.

2.4.2 Transect Layout

Transects (profiles) were located for coastal analyses perpendicular to the average shoreline along areas subject to coastal flooding; transects extend off-shore to areas representative of deep water conditions and extend inland to a point where wave action ceases, in accordance with the User's Manual for Wave Height Analysis (FEMA, 1981). Transects were placed with consideration of topographic and structural changes of the land surface, as well as the cultural characteristics of the land, so that they would closely represent local conditions.

Transects were spaced close together in areas of complex topography and dense development. In areas having more uniform characteristics, transects were spaced at larger intervals. It was also necessary to locate transects in areas where unique flooding existed and in areas where computed wave heights varied significantly between adjacent transects.

Figure 2 shows the transect layout for Bristol County. Transects are included in the digital data files compiled for the coastal submittal.

2.4.3 Coastal Engineering Analysis

Coastal engineering analyses were performed for each coastal transect using wave and SWEL data to generate wave setup and wave runup values for open coast transects and transects with vertical structures or revetments, and to generate input used in developing CHAMP and WHAFIS input data. Mathcad sheets were developed and applied by STARR for the calculations to help ensure consistency and accuracy. The input data and results of the analysis were compiled for each transect in a summary spreadsheet. The Mathcad

sheets and summary spreadsheet are included in the digital data files compiled for the coastal submittal.

CHAMP is a Microsoft (MS) Windows-interfaced Visual Basic language program that allows the user to enter data, perform coastal engineering analyses, view and tabulate results, and chart summary information for each representative transect along a coastline within a user-friendly graphical interface. With CHAMP, the user can import digital elevation data, perform storm-induced erosion treatments, wave height and wave runup analyses, plot summary graphics of the results, and create summary tables and reports in a single environment. CHAMP version 2.0 (FEMA, 2007b) was used to perform erosion analyses, run WHAFIS, and apply RUNUP 2.0 to transects without coastal structures. Application of CHAMP followed the instructions in the FEMA Guidelines and Specifications (FEMA, 2007) and the Coastal Hazard Analysis Modeling Program user's guide found in the software documentation (FEMA, 2007b).

Details of the methodologies applied are described in the following sub-sections.

2.4.3.1 Wave Setup

Wave setup can be a significant contributor to the total water level at the shoreline and was included in the determination of coastal base flood elevations. Wave setup is defined as the increase in total stillwater elevation against a barrier caused by the attenuation of waves in shallow water. Wave setup is based upon wave breaking characteristics and profile slope.

Wave setup values were calculated for each coastal transect using the Direct Integration Method (DIM), developed by Goda (2000), as described in the FEMA Guidelines and Specifications, Equation D.2.6-1. For those coastal transects where a structure was located, documentation was gathered on the structure, and the wave setup against the coastal structure was also calculated.

Wave setup calculations were performed and documented in the Mathcad sheets located in the digital data files compiled for the coastal submittal.

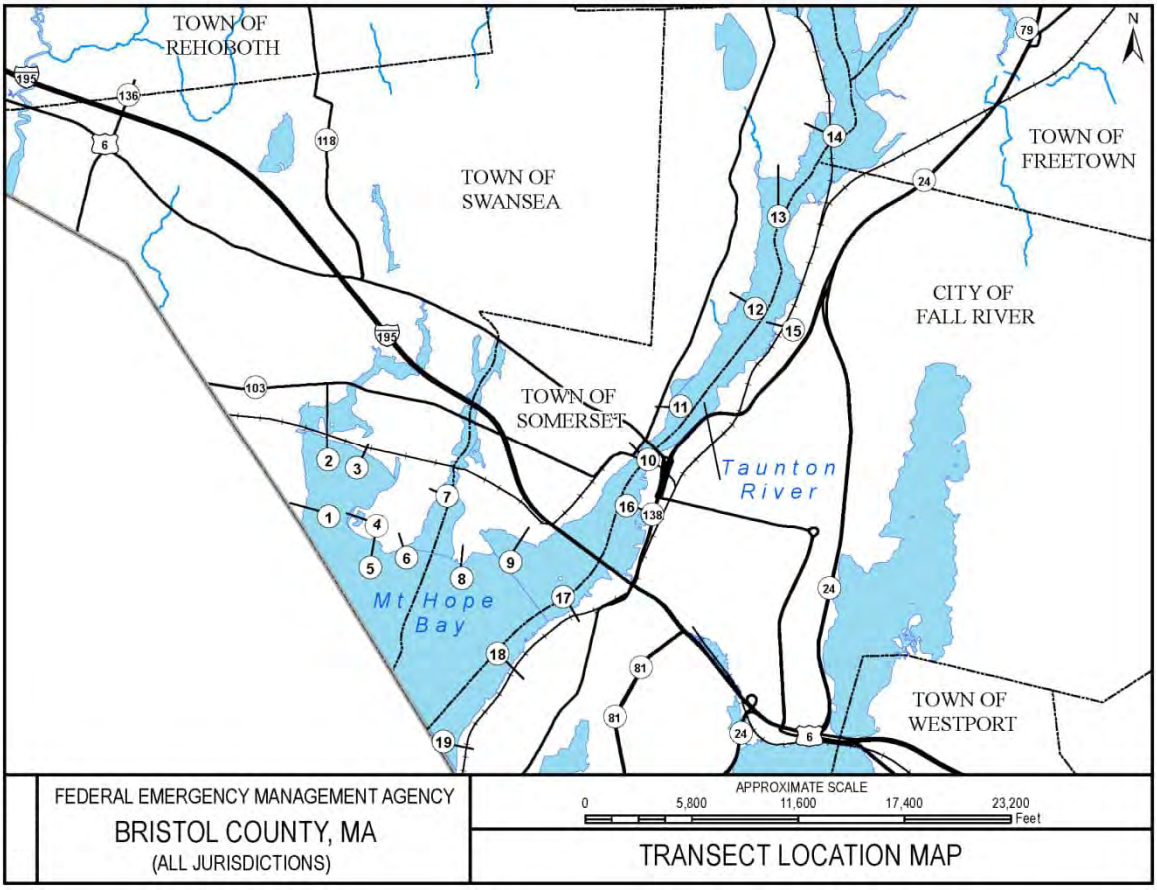


Figure 2 Transect Layout

Table 2: Number of Transects for Communities

Community	Number of Coastal Transects
CITY OF FALL RIVER	5
TOWN OF SOMERSET	7
TOWN OF SWANSEA	7
TOTAL	19

2.4.3.2 Overland Wave Propagation

The fundamental analysis of overland wave effects for an FIS is provided by FEMA's Wave Height Analysis For Flood Insurance Studies computer program, WHAFIS 4.0, a computer program that uses representative transects to compute wave crest elevations in a given study area. Topographic, vegetative, and cultural features are identified along each specified transect landward of the shoreline. WHAFIS uses this and other input information to calculate wave heights, wave crest elevations, flood insurance risk zone designations, and flood zone boundaries along the transects.

The original basis for the WHAFIS model was the 1977 National Academy of Sciences (NAS) report "Methodology for Calculating Wave Action Effects Associated with Storm Surges" (NAS, 1977). The NAS methodology accounted for varying fetch lengths, barriers to wave transmission, and the regeneration of waves over flooded land areas. Since the incorporation of the NAS methodology into the initial version of WHAFIS, periodic upgrades have been made to WHAFIS to incorporate improved or additional wave considerations.

The wave action conservation equation governs wave regeneration caused by wind and wave dissipation by marsh plants in the model. This equation is supplemented by the conservation of wave equation, which expresses the spatial variation of the wave period at the peak of the wave spectrum. The wave energy (equivalently, wave height) and wave period respond to changes in wind conditions, water depths, and obstructions as a wave propagates. These equations are solved as a function of distance along the wave analysis transect.

The WHAFIS 4.0 model used in this study was fully documented in Technical Documentation for WHAFIS Program Version 3.0 by FEMA in September 1988 and Supplementary WHAFIS Documentation for WHAFIS 4.0 in August 2007 (Divoky, 2007). WHAFIS 4.0 incorporates 500-year wind speeds in the model in addition to the 100-year, 1-percent-annual-chance wind speeds used in WHAFIS 3.0, as well as makes other improvements to the program.

WHAFIS 4.0 was applied using CHAMP to calculate overland wave height propagation and establish base flood elevations. For profiles with vertical structures or revetments, a failed structure analysis was performed and a new profile of the failed structure was generated and analyzed.

To populate the WHAFIS database in CHAMP, transect data was extracted from the GIS shapefiles as point features along the defined transects. First, the coordinates of the station corresponding to the point where each transect intersected with the shoreline (0.0-foot contour) were extracted. Land and bathymetry elevation, station and source data were also extracted using a custom tool for ArcGIS, developed by STARR. The data were extracted at 2 foot intervals. Manual adjustments near the shoreline had to be made. All points seaward of the 0.0 contour used the bathymetry elevation. Points seaward of the 0.0 contour with an elevation higher than 0.0 were removed, with the exception of offshore islands. Points representing the (0.0, 0.0) locations were appended. The extracted points were then sorted and the stationing was reset. As a next step the WHAFIS card information was extracted for each point. Since WHAFIS accepts only up to 400 points, the resulting point features were "thinned" utilizing a custom tool. This tool uses the Ramer-Douglas-Peucker algorithm to reduce the number of points along a transect to within the acceptable range for use in WHAFIS.

A CHAMP_Input.csv file was created. It contains the Transect ID, fetch length, wave height, wave period, 1-percent and 0.2-percent annual-chance SWEL, total water elevation, total water elevation including wave setup on a failed structure, flooding source, flooding type,

SWEL source, fetch source, wave setup method, structure type, toe and top elevations of structures, 2-percent wave runup and 2-percent runup on failed structures. Two template CHAMP databases, one for intact structures and one for failed structures, were then populated with the GIS data and the data from the CHAMP_Input.csv file. The CHAMP input files and databases are included in the digital data files compiled for the coastal submittal.

WHAFIS carding was developed using the WHAFIS Carding Guidance included in the reference materials for CHAMP software in accordance with the Overland Wave Propagation section in the FEMA Guidelines and Specifications (FEMA 2007). Spatial files and tables were developed into a WHAFIS geodatabase, and the WHAFIS carding was applied to the spatial files using aerial photographs, field inspection data, and topographic contours. The shapefile is included in the digital data files compiled for the coastal submittal. The WHAFIS card coding task included creating a digital file (vector) that represents each card value used in a WHAFIS database. The following data were used:

- Coastal Transect Features
- Bathymetric data
- Land DEM
- Aerial Photographs
- Contour Features
- Field Notes
- Digital Photographs
- Survey Data
- SWEL data for coastline

In addition to the CHAMP databases, WHAFIS requires a vegetation parameter file, named "mg.dat". The WHAFIS executable, input and output files, together with the transect profiles and vegetation parameter files for each transect, are included in the digital data files compiled for the coastal submittal.

Along each transect, wave heights and wave crest elevations were computed considering the combined effects of changes in ground elevation, vegetation, and physical features. Wave heights were calculated to the nearest 0.1 foot, and wave crest elevations were determined at whole-foot increments. The calculations were carried inland along the transect until the wave crest elevation was permanently less than 0.5 foot above the stillwater elevation or the coastal flooding met another flood source (i.e., a riverine flood source) with an equal water-surface elevation. The results of the calculations are accurate until local topography, vegetation, or cultural development of the area undergoes any major changes.

Detailed information on the physical and cultural features of the study area was obtained from aerial photography and LiDAR data. The land-use and land cover data were obtained from MassGIS High Resolution Orthophotography.

Figure 3 shows a typical transect profile and illustrates the effects of energy dissipation and regeneration of a wave as it moves inland. This figure shows the wave crest elevations being decreased by obstructions, such as buildings, vegetation, and rising ground elevations, and being increased by open, unobstructed wind fetches.

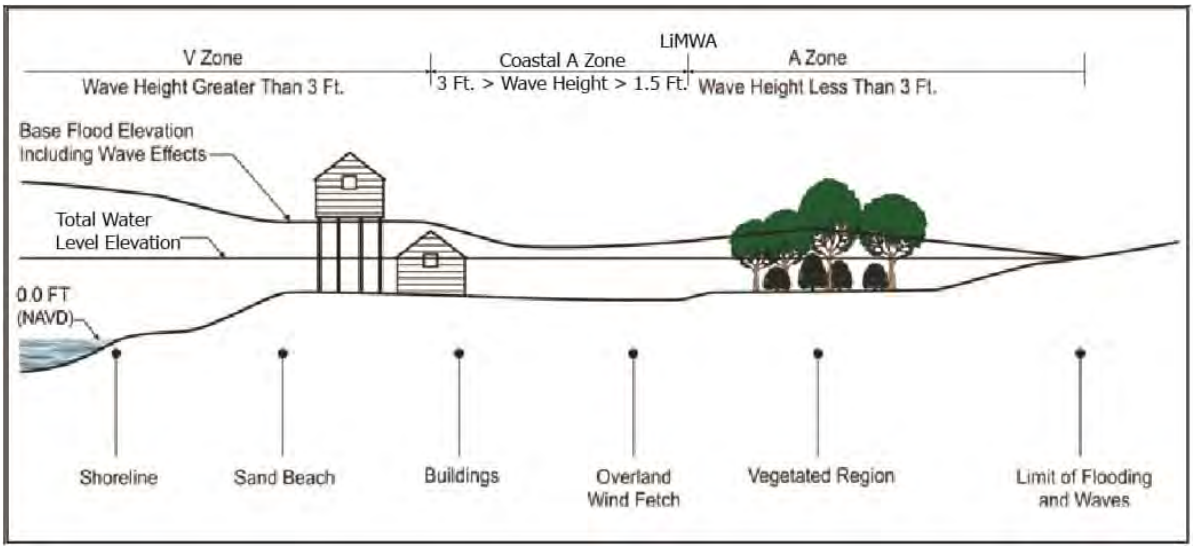


Figure 3 Wave Crest Variations along a WHAFIS Transect

Areas of coastline subject to significant wave attack are referred to as coastal high hazard zones. The USACE (1975) has established the 3-foot breaking wave as the criterion for identifying the limit of coastal high hazard zones. The 3-foot wave has been established as the minimum size wave capable of causing major damage to conventional wood frame and brick veneer structures. WHAFIS results show where the waves are greater than 3 feet (VE zone) and less than 3 feet (AE zone). **Figure 3** illustrates the relationship between the local stillwater elevations, the ground profile, and the location of the V/A zone boundary. This inland limit of the coastal high hazard area is delineated to ensure that adequate insurance rates apply and appropriate construction standards are imposed, should local agencies permit building in this coastal high hazard area.

The LiMWA is determined and defined as the location of the 1.5-foot wave. Typical constructions in areas of wave heights less than 3-feet high have experienced damage, suggesting that construction requirements within some areas of the AE zone should be more like those requirements for the VE zone. Testing and investigations have confirmed that a wave height greater than 1.5 feet can cause structure failure. The LiMWA was determined for all areas subject to significant wave attack in accordance with "Procedure Memorandum No. 50 – Policy and Procedures for Identifying and Mapping Areas Subject to Wave Heights Greater than 1.5 feet as an Informational Layer on Flood Insurance Rate Maps (FIRMs)" (FEMA, 2008).

The effects of wave hazards in the Zone AE areas (or shoreline in areas where VE Zones are not identified) and the limit of the LiMWA boundary are similar to, but less severe than,

those in Zone VE where 3-foot breaking waves are projected during a 1-percent-annual-chance flooding event.

For transects where erosion was applied using CHAMP, the WHAFIS table for an eroded transect in the CHAMP input database was then adjusted manually to match the transect profile in the CHAMP erosion results in the EROSION table of the CHAMP input geodatabase. WHAFIS card fields were changed to inland fetch (IF) for these points. WHAFIS records between the toe and top of the eroded section of the profile were removed, to match the EROSION table.

2.4.3.3 Wave Runup and Overtopping

Wave runup is the uprush of water caused by the interaction of waves with the area of shoreline where the stillwater hits the land or other barrier intercepting the stillwater level. The wave runup elevation is the vertical height above the stillwater level ultimately attained by the extremity of the uprushing water. Wave runup at a shore barrier can provide flood hazards above and beyond those from stillwater inundation. Guidance in the FEMA Guidelines and Specifications (FEMA, 2007) suggests using the 2-percent wave runup value, the value exceeded by 2 percent of the runup events. The 2-percent wave runup value is particularly important for steep slopes and vertical structures.

Wave runup was calculated for each coastal transect using methods as described in the FEMA Guidelines and Specifications (FEMA, 2007). Runup estimates were developed for vertical walls using the guidance in Figure D.2.8-3 of the FEMA Guidelines and Specifications (FEMA, 2007), taken from the Shore Protection Manual (USACE, 1984). Technical Advisory Committee for Water Retaining Structures (TAW) method was applied for sloped structures with a slope steeper than 1:8. For slopes milder than 1:8, the FEMA Wave Runup Model RUNUP 2.0 was used. Both the SPM and RUNUP 2.0 provide mean wave runup. The mean wave runup was multiplied by 2.2 to obtain the 2-percent runup height. Wave runup elevation was added to the stillwater elevation and does not include wave setup.

When the runup is greater than or equal to 3 feet above the maximum ground elevation, the base flood elevation was determined to be 3 feet above the ground crest elevation, in accordance with guidance in the FEMA Guidelines and Specifications (FEMA, 2007). Computed runup was not adjusted if less than 3 feet above the ground crest.

When runup overtops a barrier such as a partially eroded bluff or a structure, the floodwater percolates into the bed and/or runs along the back slope until it reaches another flooding source or a ponding area. Standardized procedures for the treatment of shallow water flooding and ponding were applied as described in the FEMA Guidelines and Specifications (FEMA, 2007).

In areas where wave runup elevations dominate over wave heights, such as areas with steeply sloped beaches, bluffs, and/or shore-parallel flood protection structures, there is no evidence to date of significant damage to residential structures by runup depths less than 3 feet. However, to simplify representation, the LiMWA was continued immediately

landward of the VE/AE boundary in areas where wave runup elevations dominate. Similarly, in areas where the Zone VE designation is based on the presence of a primary frontal dune or wave overtopping, the LiMWA was also delineated immediately landward of the Zone VE/AE boundary.

Where uncertified coastal structures such as vertical walls and revetments were present, additional analysis for wave runup was performed on profiles assuming the structure will partially fail during the base flood. The post-failure slope applied for this analysis was 1:3 for sloped revetments, and 1:1.5 for vertical walls, which is within the range suggested by the FEMA Guidelines and Specifications (FEMA, 2007).

Mathcad files for wave runup calculated using SPM and TAW methods are included in the digital data files compiled for the coastal submittal. Wave runup was also calculated using RUNUP 2.0 in cases where there were no coastal structures. Input and output files for RUNUP 2.0 analyses are located in the digital data files compiled for the coastal submittal.

2.4.3.4 Erosion

During significant coastal storms, shoreline profiles are altered due to episodic erosion and can allow for greater landward propagation of waves. As a result, flood hazard analysis and mapping was based on eroded profiles, where applicable. For this study, the eroded profile was calculated within the Erosion Module of the Coastal Hazards Analysis Modeling Program (CHAMP) version 2.0 for sand beaches with a well-defined dune in accordance with the FEMA Guidelines and Specifications (FEMA, 2007). The guidance identifies the size of the frontal dune reservoir, or the cross-sectional area of the dune above the 1-percent-annual-chance SWEL, as the key attribute in determining the relative stability of the dune.

Erosion analysis using CHAMP was performed for profiles with erodible dunes and without coastal structures, such as vertical walls or revetments. The dune subject to erosion is a sandy feature with potentially light vegetation. Any thickly vegetated, rocky, silty, or clayey dune features or bluffs were not eroded. Predicted post-storm erosion profiles were used for analysis of wave heights associated with coastal storm surge flooding, where appropriate.

Guidance in Appendix D, Section D.2.9.3.1 of the FEMA Guidelines and Specifications (FEMA, 2007) and the CHAMP users' manual (FEMA, 2007b) was followed for selecting the dune peak and toe. The toe of dune was generally an inflection point in the profile where the slope of the profile transitions from a mild slope to a steeper slope. The peak of the dune is generally the highest point on the dune of interest that is not caused by an anthropogenic source or vegetation. The toe and peak of dune determine the overall dune reservoir. If the dune reservoir exceeded 540 square feet in cross-sectional area, then the storm-induced erosion resulted in dune face retreat. If the cross-sectional area was less than 540 square feet, then the dune was removed, resulting in a ground profile slope of 1:50 running through the dune toe.

For transects where erosion was applied, the erosion transect profile in the CHAMP EROSION table was populated with at least two new points added into the profile identifying the toe and top of the eroded areas of the profile.

2.4.3.5 Identification of Primary Frontal Dunes

No significant Primary Frontal Dunes (PFDs) were identified in this updated coastal analysis; therefore, no further PFD analysis was performed in Bristol County.

2.4.4 Coastal Engineering Results

Table 3 is the coastal data table, which summarizes the transect description, numbering, location, stillwater elevations, and zone designation and 1-percent-annual-chance Base Flood Elevations (BFE) in feet NAVD88.

Table 3: Coastal Data Table

Community Name	Transect	Description	Latitude & Longitude at Start of WHAFIS Transect (NAD83)		Stillwater elevations (feet NAVD88)				Zone Designation and BFE (feet NAVD 88)
					10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance	
Swansea	BR-01	The transect is located at the shoreline of Mt. Hope Bay, in the Town of Swansea, from the Rhode Island / Massachusetts State Boundary to Barton Avenue	2721409.9	731113.4	8.4	12.3	13.9	17.6	AE 13-16 VE 17-22
Swansea	BR-02	The transect is located at the shoreline of Mt. Hope Bay, in the Town of Swansea, from Barton Avenue to Cole Street	2725111.4	732325.7	8.4	12.3	13.9	17.6	AE 17-18 VE 19
Swansea	BR-03	The transect is located at the shoreline of Mt. Hope Bay, in the Town of Swansea, from Cole Street to Calef Avenue	2724390.8	734370.9	8.4	12.3	13.9	17.6	AE 15-17 VE 17
Swansea	BR-04	The transect is located at the shoreline of Mt. Hope Bay, in the Town of Swansea, from Calef Avenue to the intersection of Bay Point Street and Susan Place	2720905.9	733877.7	8.4	12.3	13.9	17.6	AE 17 VE 18
Swansea	BR-05	The transect is located at the shoreline of Mt. Hope Bay, in the Town of Swansea, from the intersection of Bay Point Street and Susan Place to Gardners Neck Road	2719647.7	734899.6	8.4	12.3	13.9	17.6	AE 16-17 VE 18-21
Swansea	BR-06	The transect is located at the shoreline of Mt. Hope Bay, at the mouth of the Lee River, in the Town of Swansea, from Gardners Neck Road to Mattapoisett Road	2719248.5	736466.8	8.4	12.3	13.9	17.6	VE 21
Swansea	BR-07	The transect is located at the shoreline of Mt. Hope Bay, at the mouth of the Lee River, in the Town of Swansea, from Mattapoisett Road to the power generation facility approximately 2,000 feet south of Kenneth Avenue	2722146.4	738502.9	8.4	12.3	13.9	17.6	AE 16-17 VE 18
Somerset	BR-08	The transect is located at the shoreline of Mt. Hope Bay, in the Town of Somerset, from the power generation facility approximately 2,000 feet south of Kenneth Avenue to Farren Street (extended)	2718275.2	739631.3	8.4	12.3	13.9	17.6	AE 15-18 VE 18
Somerset	BR-09	The transect is located at the shoreline of the Taunton River, in the Town of Somerset, from Farren Street (extended) to the intersection of Riverside Avenue and Alden Place	2719637.7	742880.2	8.4	12.3	13.9	17.6	AE 15-17 VE 19
Somerset	BR-10	The transect is located at the shoreline of the Taunton River, in the Town of Somerset, from the intersection of Riverside Avenue and Alden Place to Slades Ferry Avenue	2724438.9	749266.8	8.4	12.3	13.9	17.6	AE 15-16 VE 18
Somerset	BR-11	The transect is located at the shoreline of the Taunton River, in the Town of Somerset, from Slades Ferry Avenue to approximately 700 feet northeast of the Riverside Avenue / Stevens Street intersection	2726912.6	750910.4	8.4	12.3	13.9	17.6	AE 15 VE 16
Somerset	BR-12	The transect is located at the shoreline of the Taunton River, in the Town of Somerset, from approximately 700 feet northeast of the Riverside Avenue / Stevens Street intersection to Cusick Lane	2732813.7	754825.7	8.4	12.3	13.9	17.6	AE 16 VE 17
Somerset	BR-13	The transect is located at the shoreline of the Taunton River, in the Town of Somerset, from Cusick Lane to Euclid Avenue	2739409.6	756893.2	8.4	12.3	13.9	17.6	AE 14-17 VE 19
Somerset	BR-14	The transect is located at the shoreline of the Taunton River, in the Town of Somerset, from Euclid Avenue to Broad Cove Street (extended)	2742126.6	758825.0	8.4	12.3	13.9	17.6	AE 15-17 VE 18
Fall River	BR-15	The transect is located at the shoreline of the Taunton River, in the City of Fall River, from Broad Cove Street (extended) to Haskell Street (extended)	2731398.4	756744.2	8.4	12.3	13.9	17.6	AE 14-17 VE 17

Community Name	Transect	Description	Latitude & Longitude at Start of WHAFIS Transect (NAD83)		Stillwater elevations (feet NAVD88)				Zone Designation and BFE (feet NAVD 88)
					10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance	
Fall River	BR-16	The transect is located at the shoreline of the Taunton River, in the City of Fall River, from Haskell Street (extended) to Ferry Street	2721333.8	749324.3	8.4	12.3	13.9	17.6	AE 15 VE 17
Fall River	BR-17	The transect is located at the shoreline of the Taunton River, in the City of Fall River, from Ferry Street to Bradford Avenue (extended)	2715819.7	745697.2	8.4	12.3	13.9	17.6	AE 16 VE 24
Fall River	BR-18	The transect is located at the shoreline of Mt. Hope Bay, in the City of Fall River, from Bradford Avenue (extended) to Riverview Street (extended)	2712679.2	742417.7	8.4	12.3	13.9	17.6	AE 16 VE 24
Fall River	BR-19	The transect is located at the shoreline of Mt. Hope Bay, in the City of Fall River, from Riverview Street (extended) to the Massachusetts / Rhode Island State Boundary	2708407.4	739497.0	8.4	12.3	13.9	17.6	AE 15 VE 17-21

Section 3
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National Flood Hazard Layer FIRMette

FEMA

71°7'33"W 41°48'49"N



71°6'56"W 41°48'22"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

A00840 - 226

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/15/2022 at 11:46 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

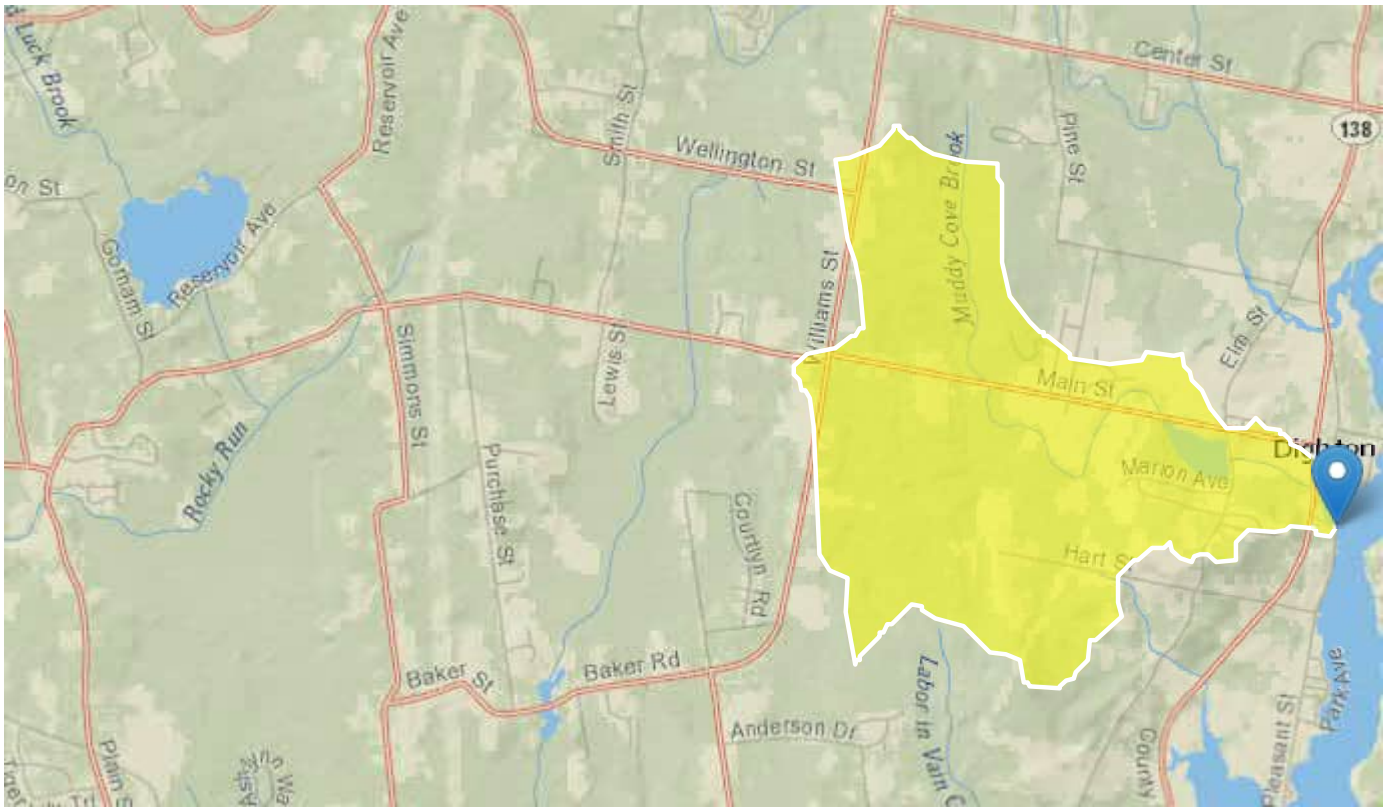
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX C

HYDROLOGIC & HYDRAULIC COMPUTATIONS

StreamStats Report

Region ID: MA
Workspace ID: MA20220603151425429000
Clicked Point (Latitude, Longitude): 41.80956, -71.11969
Time: 2022-06-03 11:14:45 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	2.92	square miles
ELEV	Mean Basin Elevation	96.2	feet
LC06STOR	Percentage of water bodies and wetlands determined from the NLCD 2006	19.51	percent

Peak-Flow Statistics

Peak-Flow Statistics Parameters [Peak Statewide 2016 5156]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	2.92	square miles	0.16	512
ELEV	Mean Basin Elevation	96.2	feet	80.6	1948
LC06STOR	Percent Storage from NLCD2006	19.51	percent	0	32.3

Peak-Flow Statistics Flow Report [Peak Statewide 2016 5156]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	PIu	ASEp
50-percent AEP flood	63	ft^3/s	32.2	123	42.3
20-percent AEP flood	104	ft^3/s	52.4	206	43.4
10-percent AEP flood	136	ft^3/s	66.9	276	44.7
4-percent AEP flood	182	ft^3/s	86.6	383	47.1
2-percent AEP flood	220	ft^3/s	101	478	49.4
1-percent AEP flood	260	ft^3/s	116	582	51.8
0.5-percent AEP flood	302	ft^3/s	131	696	54.1
0.2-percent AEP flood	364	ft^3/s	151	879	57.6

Peak-Flow Statistics Citations

Zarriello, P.J.,2017, Magnitude of flood flows at selected annual exceedance probabilities for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2016–5156, 99 p. (https://dx.doi.org/10.3133/sir20165156)

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Application Version: 4.9.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.0

IMPROVING COMMUNITIES TOGETHER

JOB	Pleasant Street, Dighton, MA	NO.	10328
CALC	JMC	DATE	11/08/24
CHKD	BB	DATE	11/08/24
DESC	USGS Water Supply Paper 2214	SHEET	1 OF 1

Eastern Massachusetts

Merrimack River basin

Coastal river basins (Parker River to Ten Mile River excluding basins in eastern Plymouth County)

	Average standard error (percent)	
$Q_{0.5} = 36.30A^{0.682}$	49	(1)
$Q_{0.2} = 55.38A^{0.670}$	45	(2)
$Q_{0.1} = 72.12A^{0.660}$	44	(3)
$Q_{0.04} = 96.71A^{0.651}$	46	(4)
$Q_{0.02} = 118.1A^{0.645}$	48	(5)
$Q_{0.01} = 143.1A^{0.638}$	52	(6)

A= 2.92 mi^2

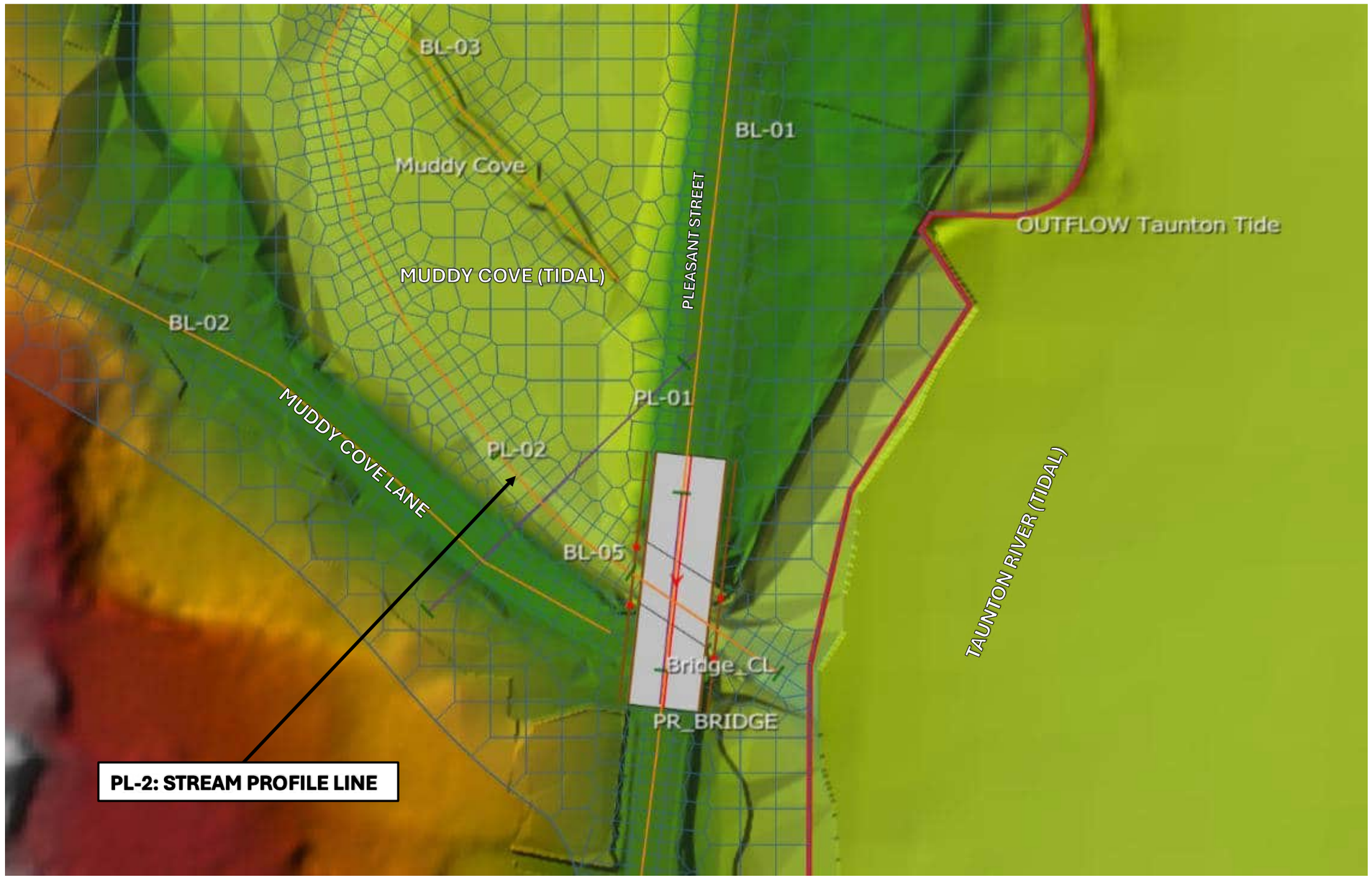
	Q [CFS]	StreamStats [CFS]	% Difference
$Q_{0.1} = 72.12A^{0.682}$	146.29	136	-7.6%
$Q_{0.04} = 96.71A^{0.651}$	194.28	182	-6.7%
$Q_{0.02} = 118.1A^{0.645}$	235.73	220	-7.2%
$Q_{0.01} = 143.1A^{0.638}$	283.50	260	-9.0%

JOB	Pleasant Street Bridge, Dighton, MA	NO.	10328
CALC	JMC	DATE	11/12/24
CHKD	BB	DATE	11/12/24
DESC	Climate Change Indicator (CCI)	SHEET	1 OF 1

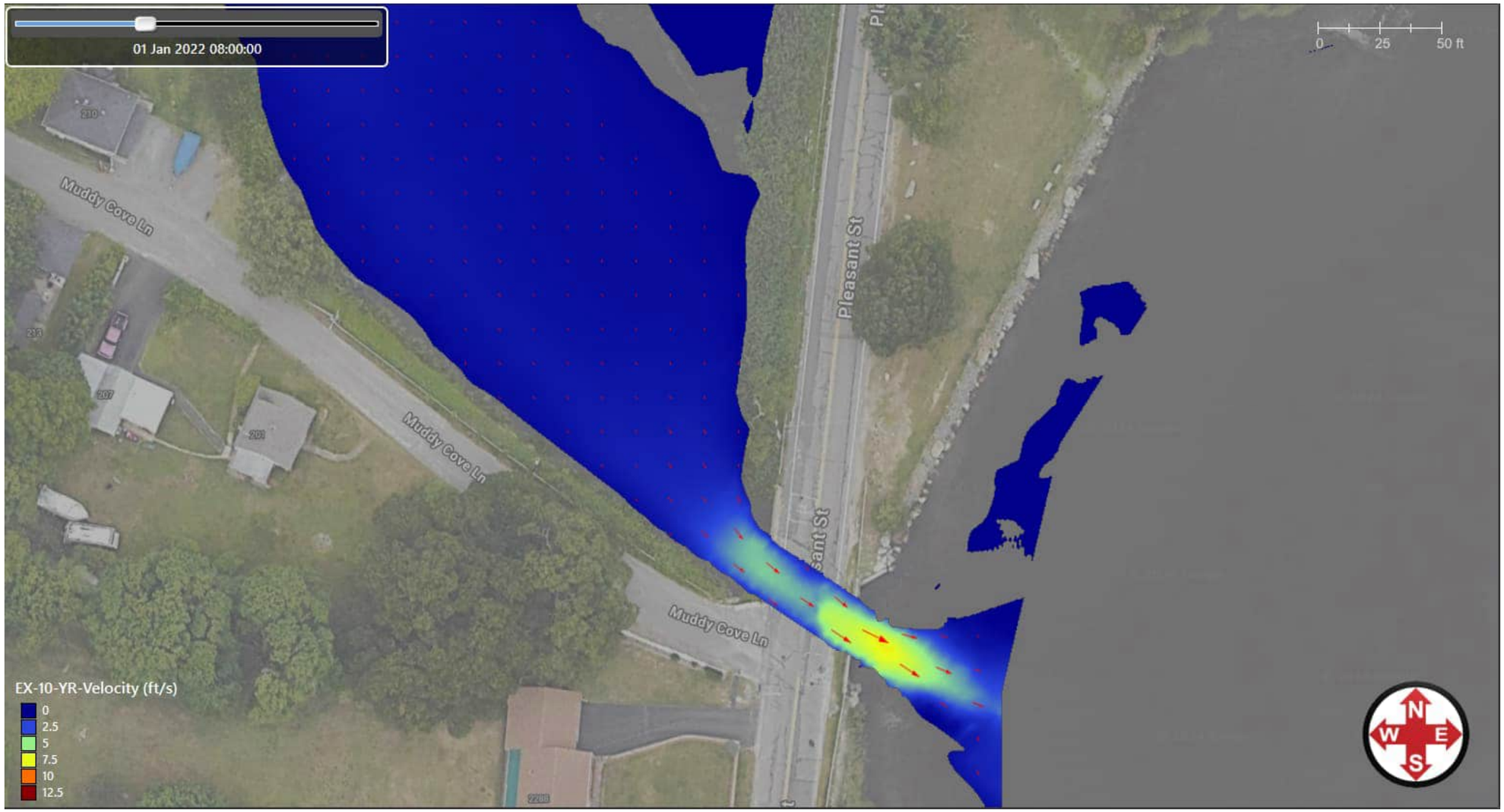
$$CCI = \frac{P_{24,T,P} - P_{24,T,O}}{P_{24,T,O,U} - P_{24,T,O}}$$

CCI= Climate Change Indicator
$P_{24,T,P}$ = Projected T-Year 24-HR precipitation
$P_{24,T,O}$ = Observed T-Year 24-HR precipitation (NOAA Atlas 14 PFDS)
$P_{24,T,O,U}$ = Upper 90% Confidence Limit T-year 24-HR precipitation for the observed data (NOAA Atlas 14 PFDS)

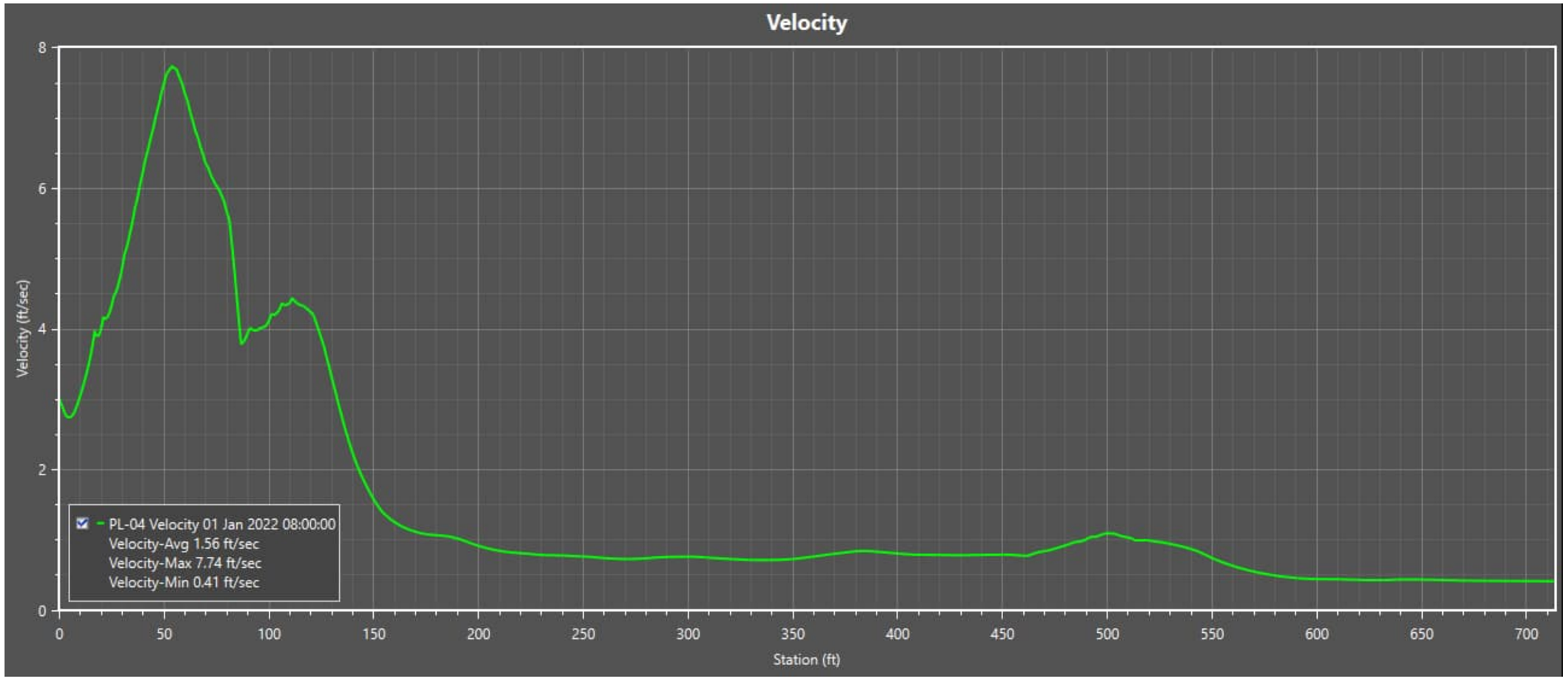
	10% AEP 10-Year	4% AEP 25-Year	2 % AEP 50-Year	1% AEP 100-Year
$P_{24,T,O}$	5.08	6.12	6.91	7.73
$P_{24,T,O,U}$	6.26	7.79	8.92	10.30
RFB_p	1.18	1.19	1.19	1.19
$P_{24,T,P}$	5.99	7.28	8.22	9.20
CCI	0.77	0.70	0.65	0.57



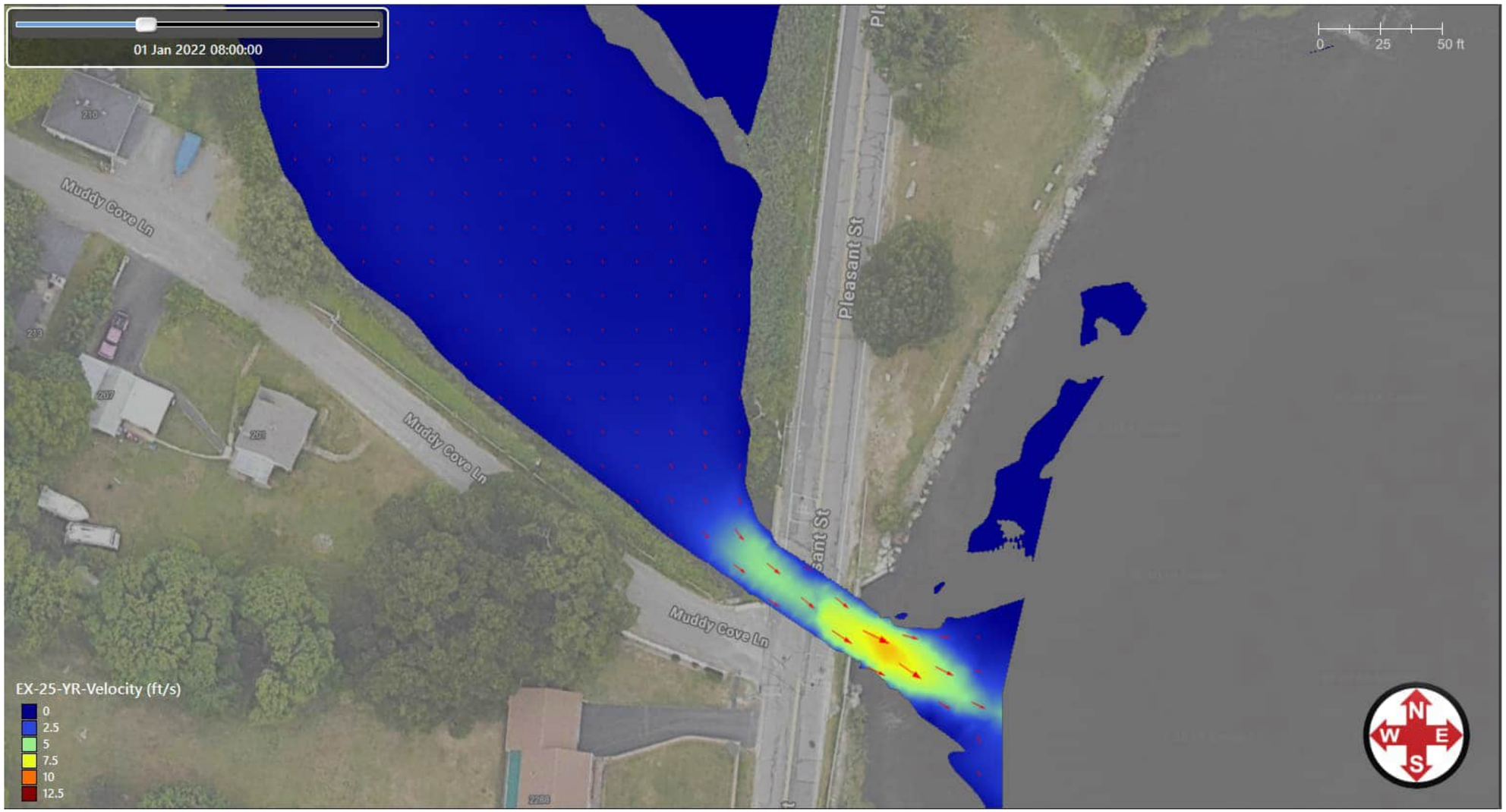
GeoHECRAS 2D Modeling Results: Model Overview



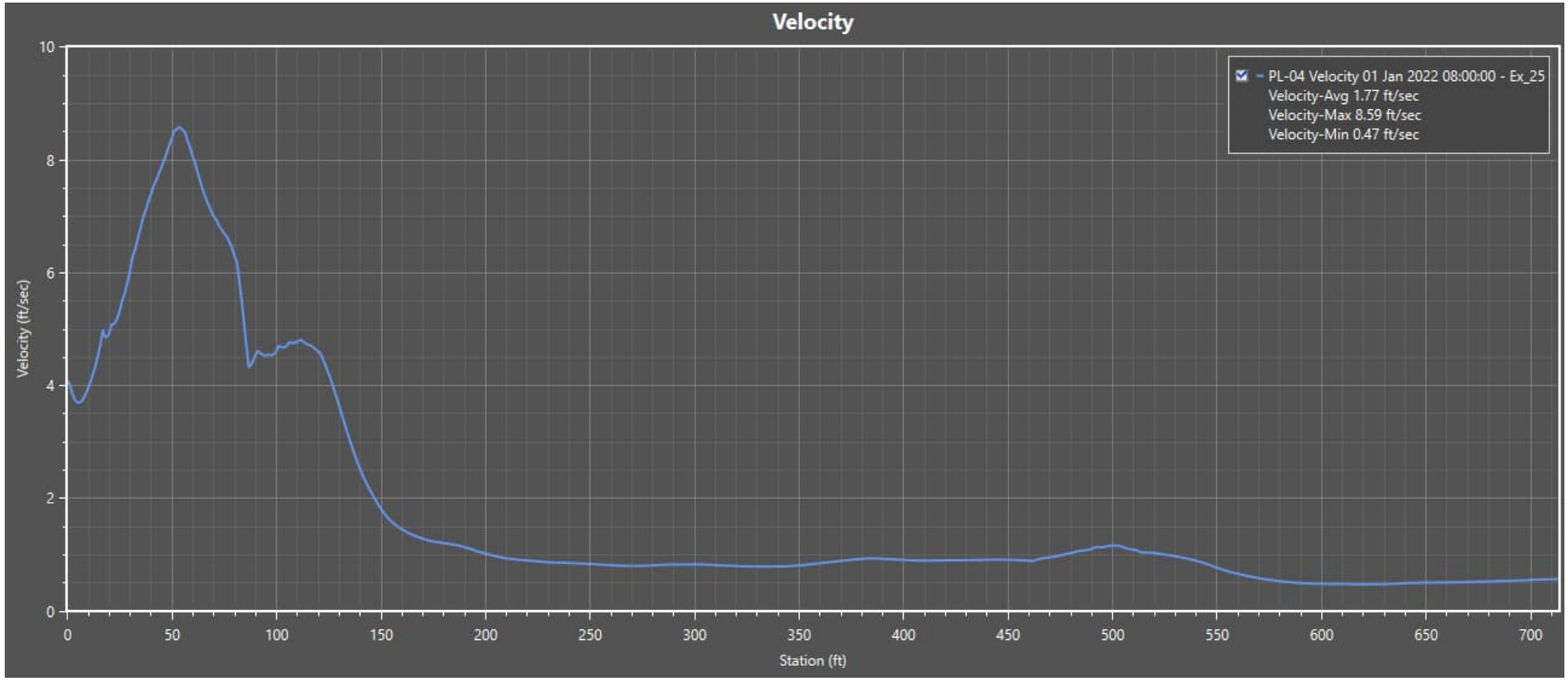
GeoHECRAS 2D Modeling Results: Existing Conditions, 10-YR Flood



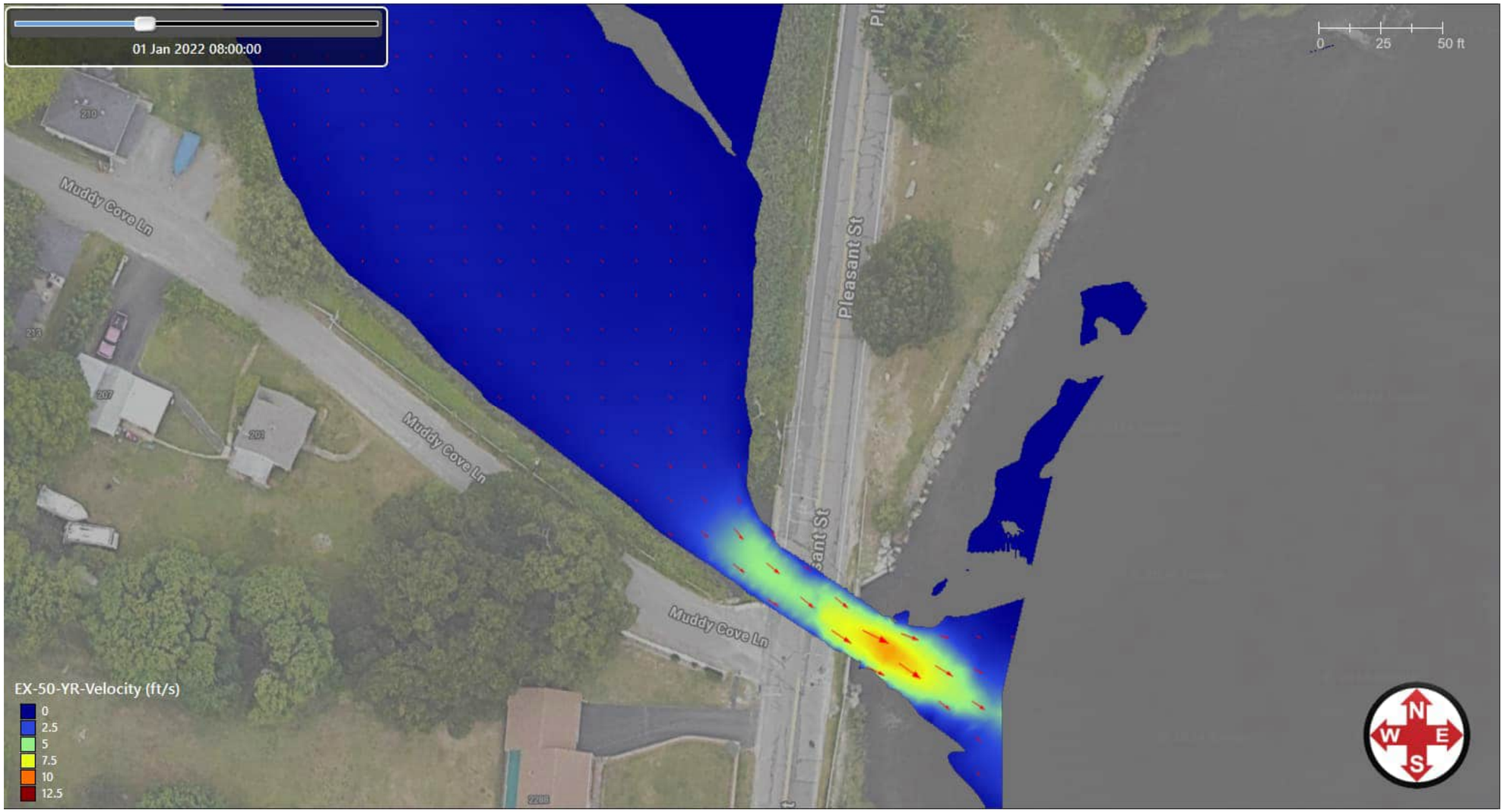
GeoHECRAS 2D Modeling Results: Existing Conditions, 10-YR Flood



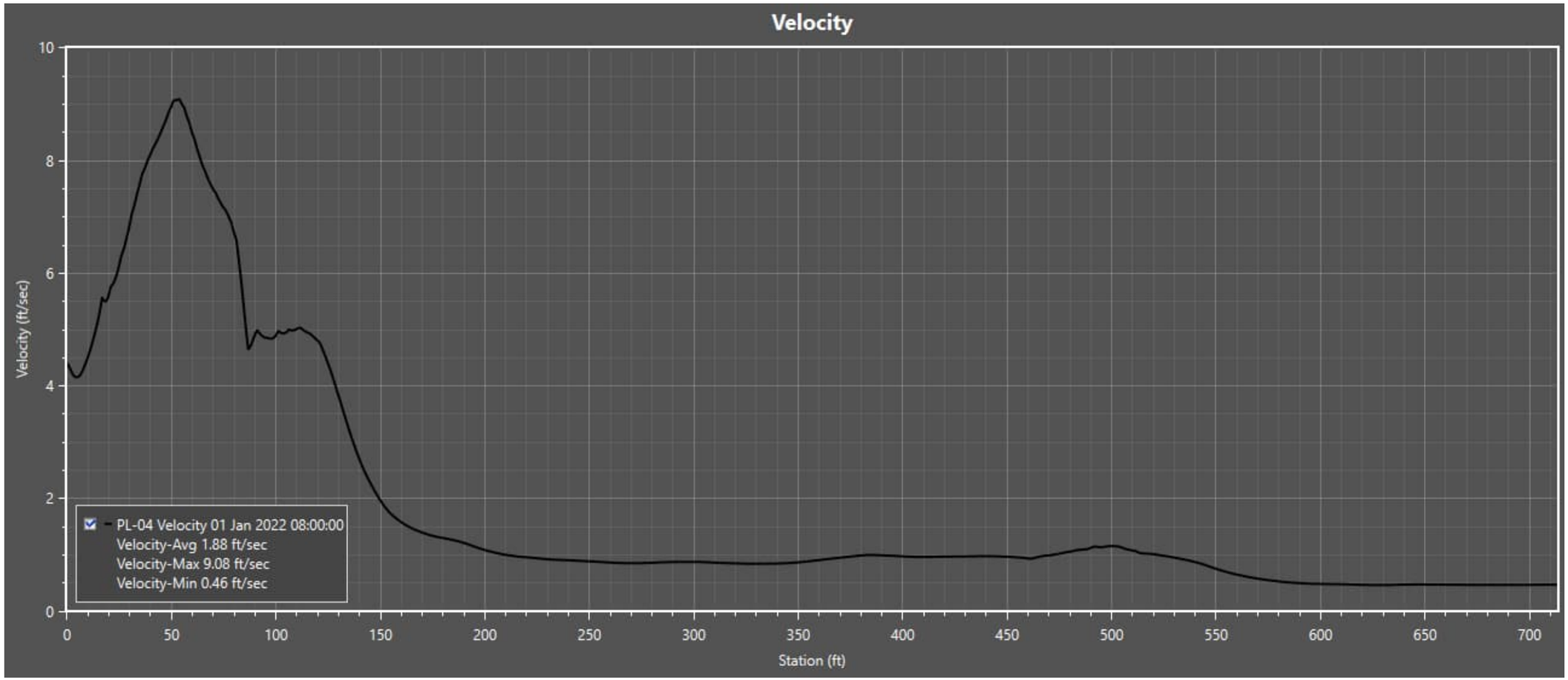
GeoHECRAS **2D Modeling Results: Existing Conditions, 25**-YR Flood



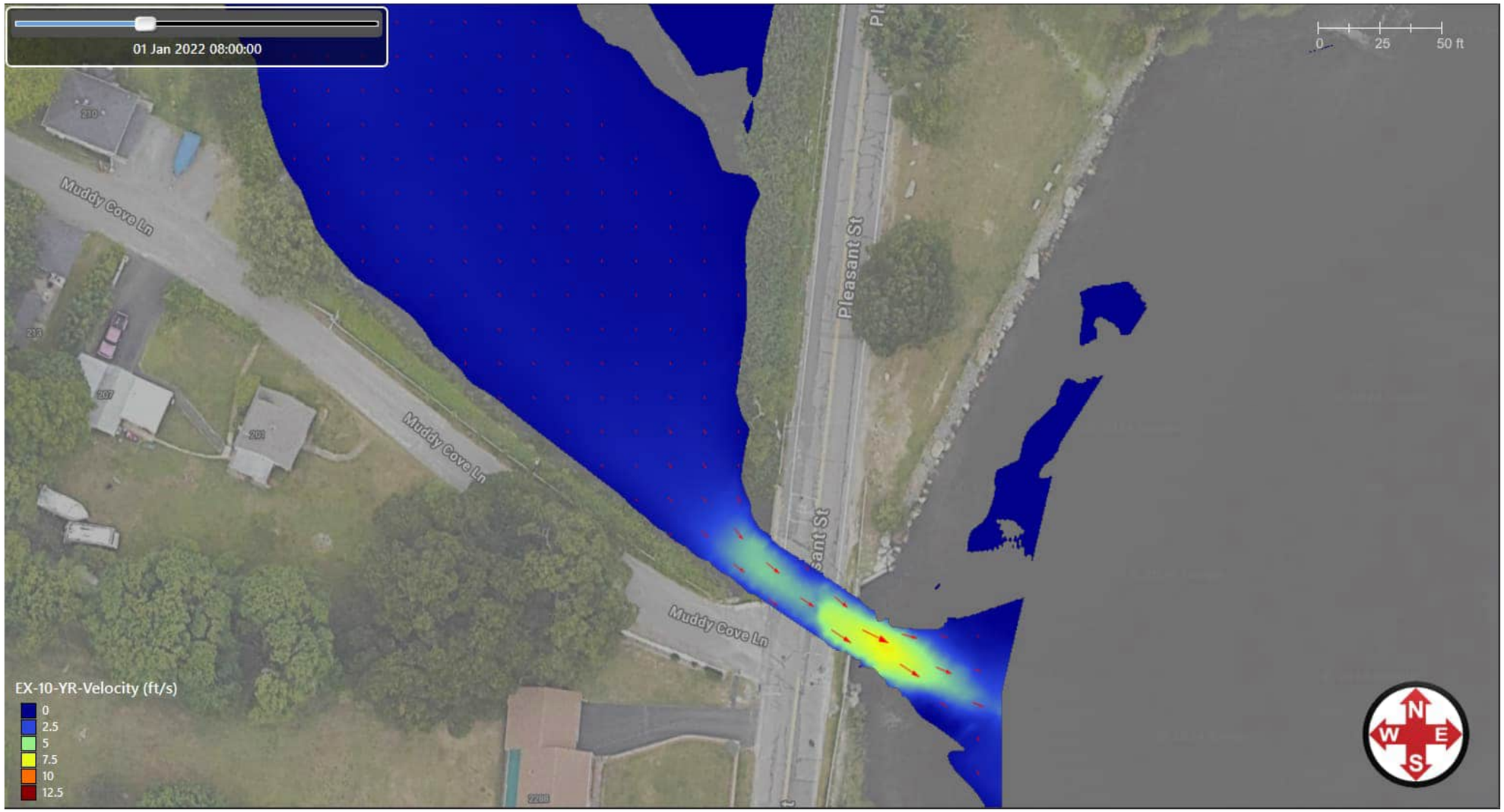
GeoHECRAS 2D Modeling Results: Existing Conditions, 25-YR Flood



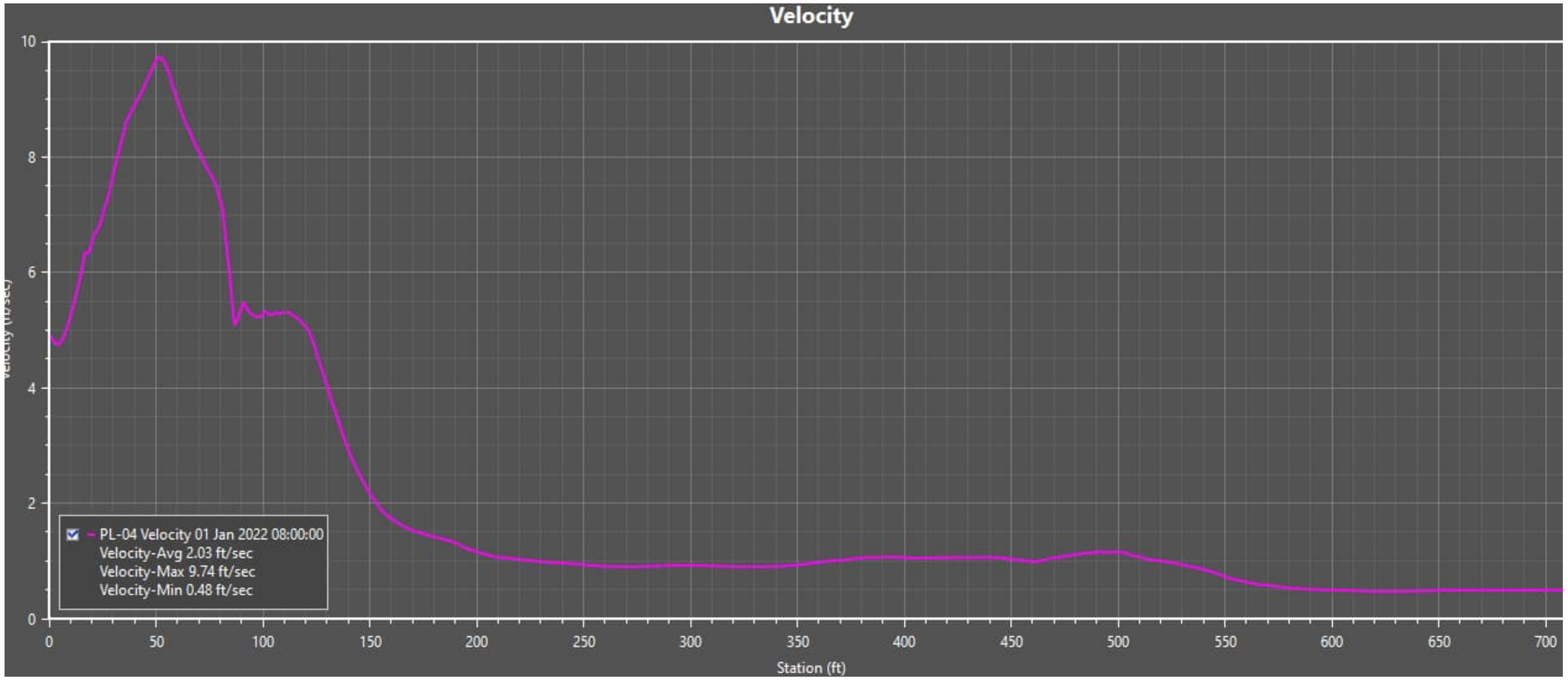
GeoHECRAS 2D Modeling Results: Existing Conditions, 50-YR Flood



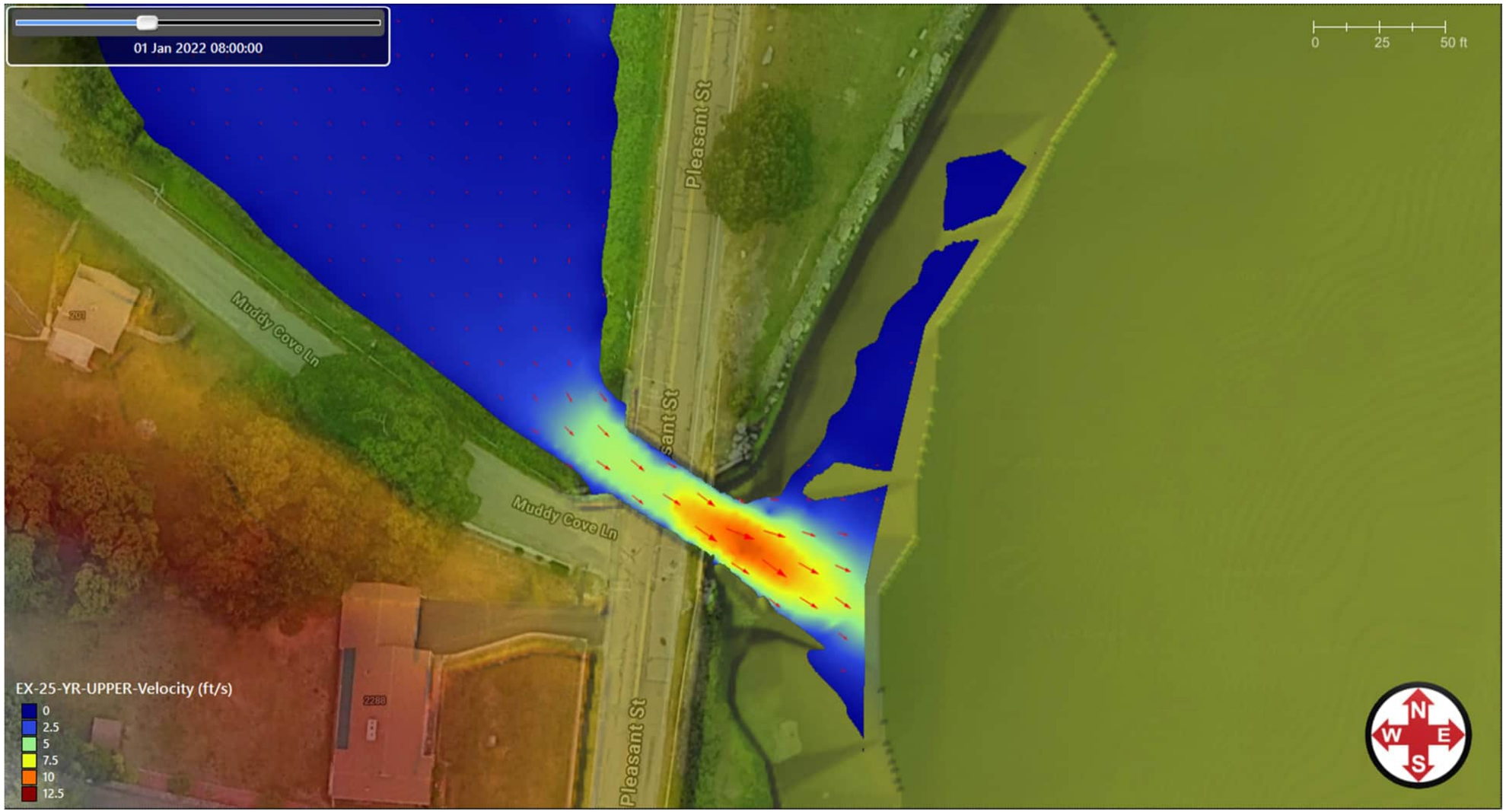
GeoHECRAS **2D Modeling Results: Existing Conditions,** 50-YR Flood



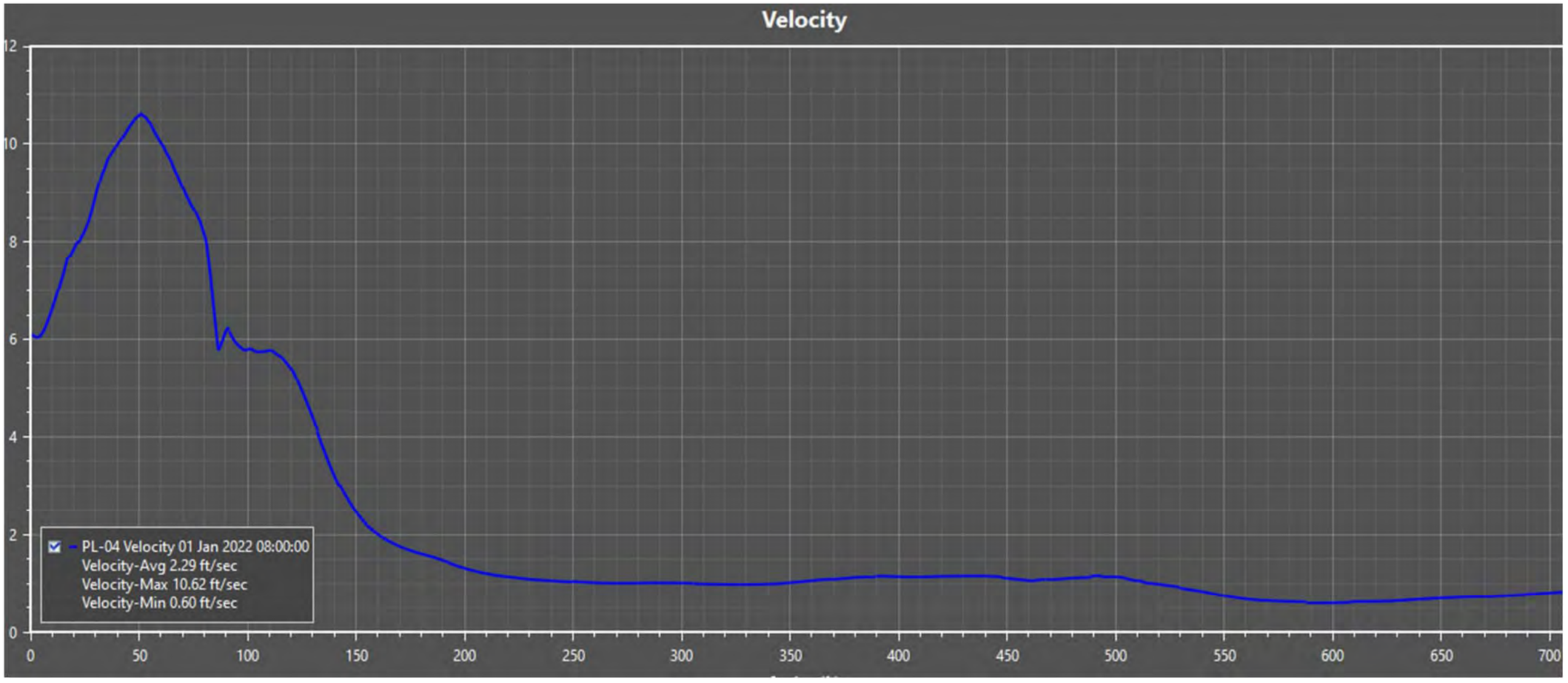
GeoHECRAS 2D Modeling Results: Existing Conditions, Upper 10-YR Flood



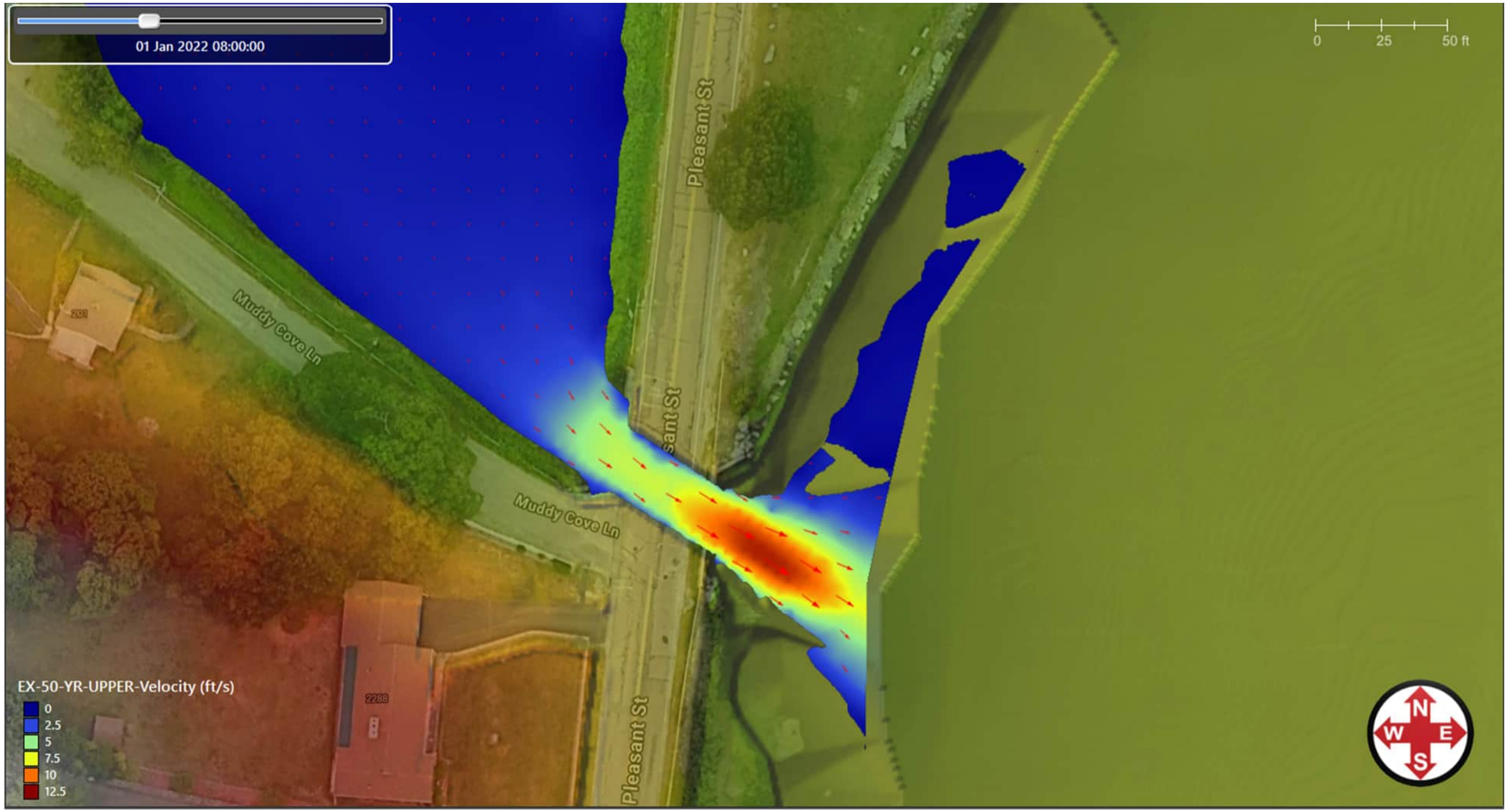
GeoHECRAS 2D Modeling Results: Existing Conditions, Upper 10-YR Flood



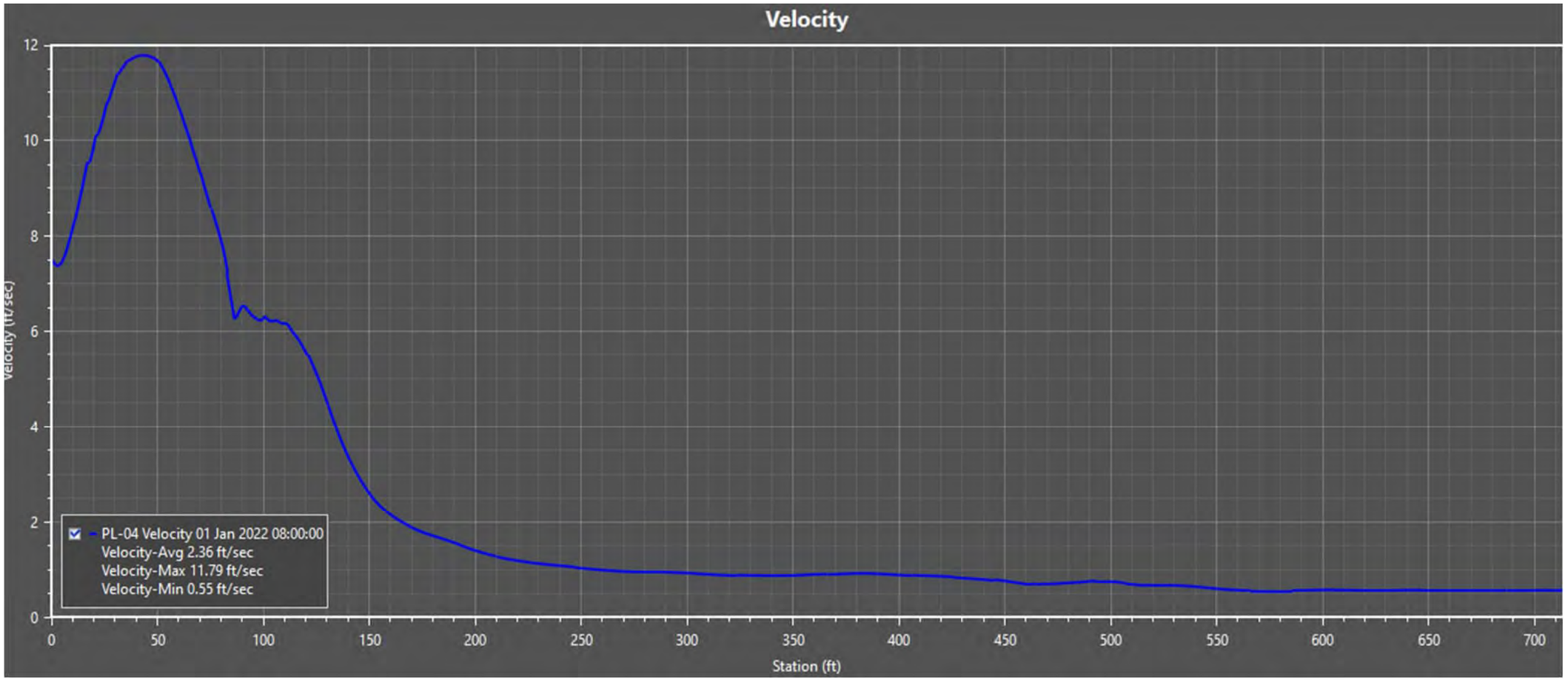
GeoHECRAS 2D Modeling Results: Existing Conditions, Upper 25-YR Flood



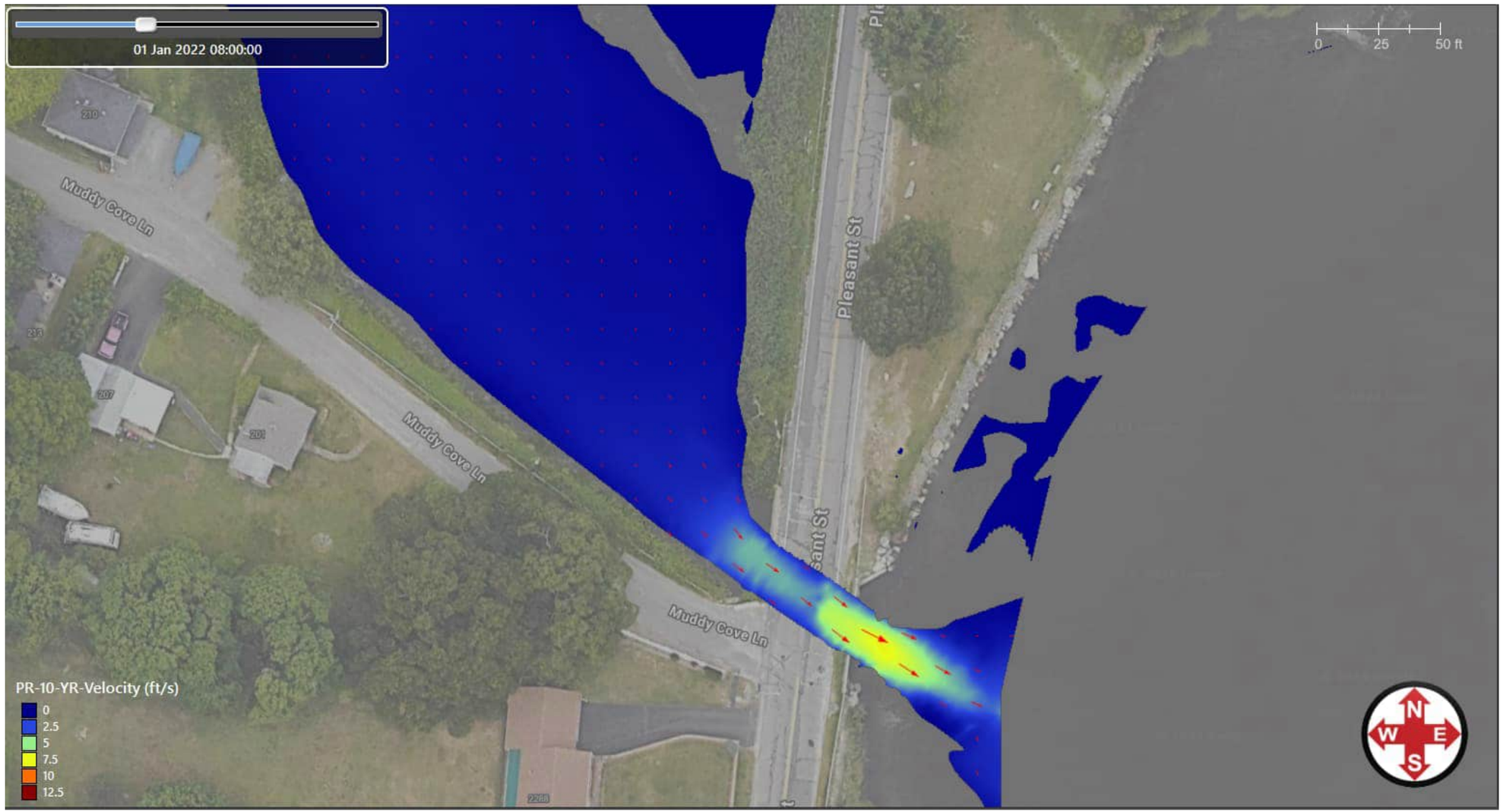
GeoHECRAS 2D Modeling Results: Existing Conditions, Upper 25-YR Flood



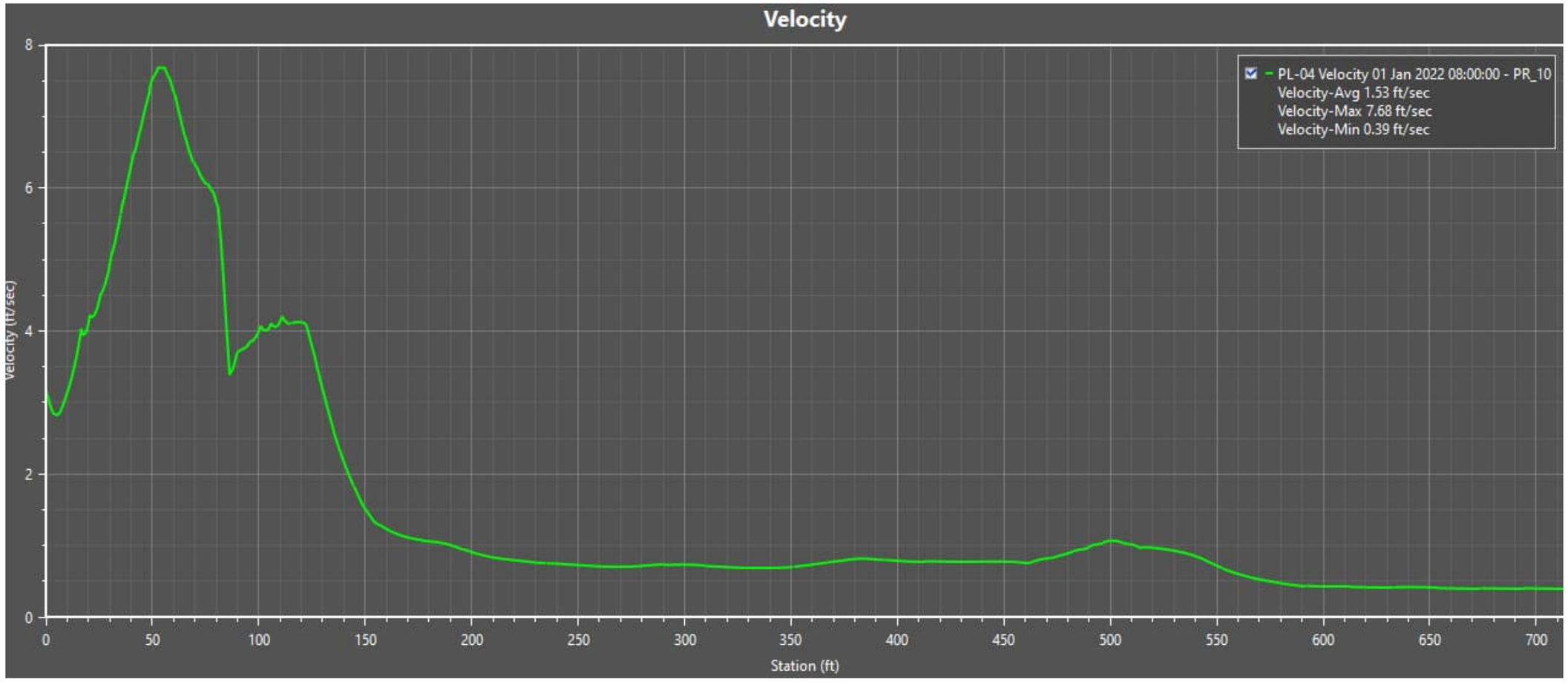
GeoHECRAS 2D Modeling Results: Existing Conditions, Upper 50-YR Flood



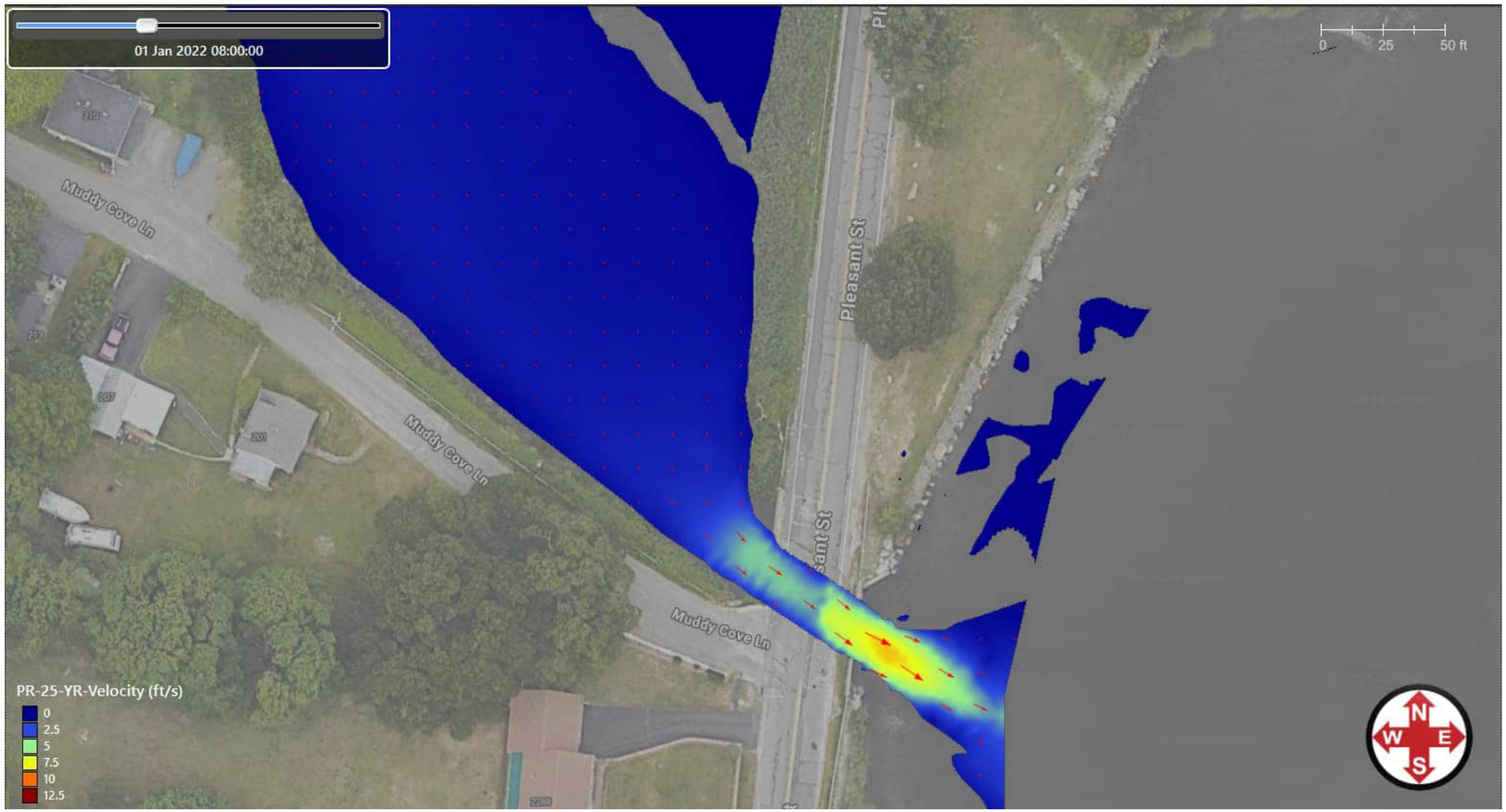
GeoHECRAS 2D Modeling Results: Existing Conditions, Upper 50-YR Flood



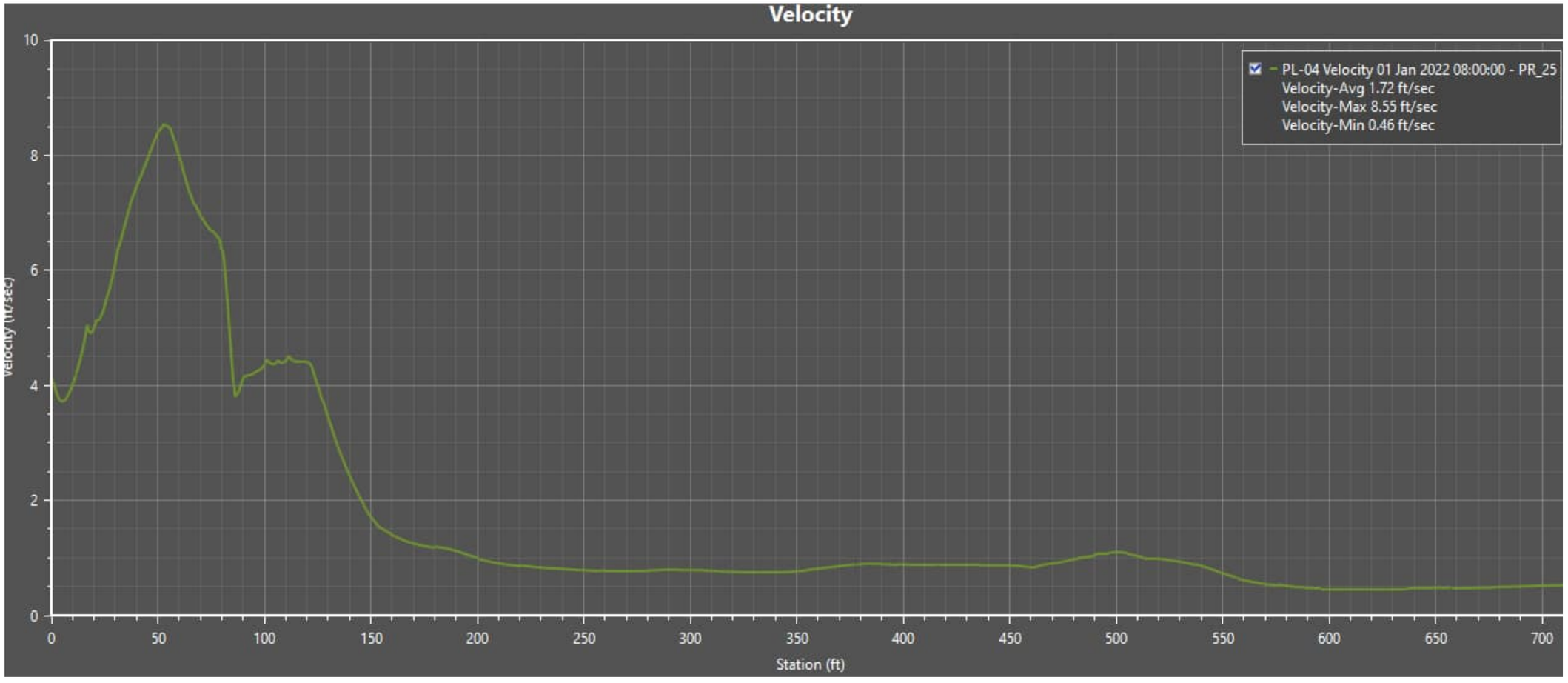
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** 10-YR Flood



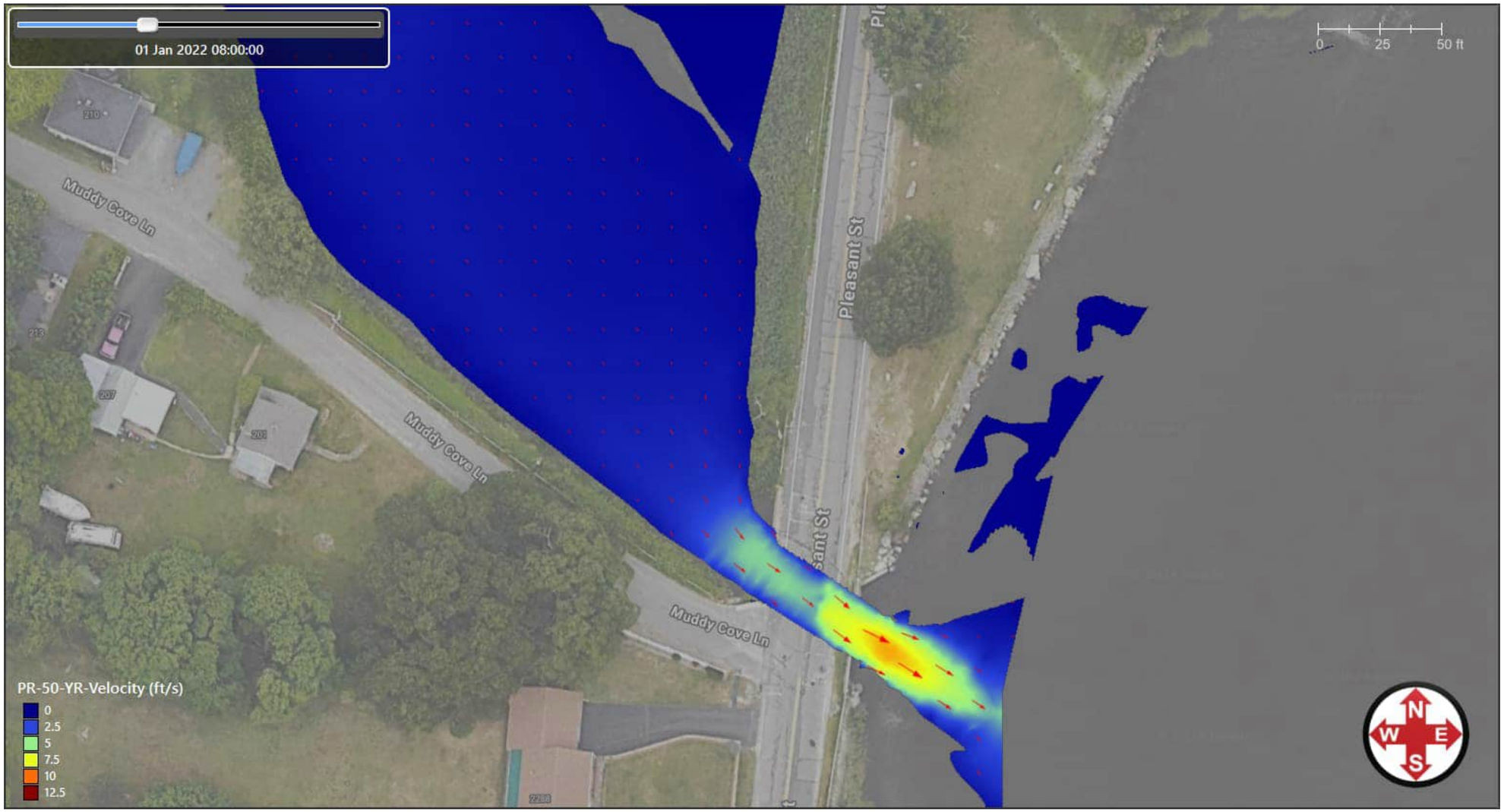
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** 10-YR Flood



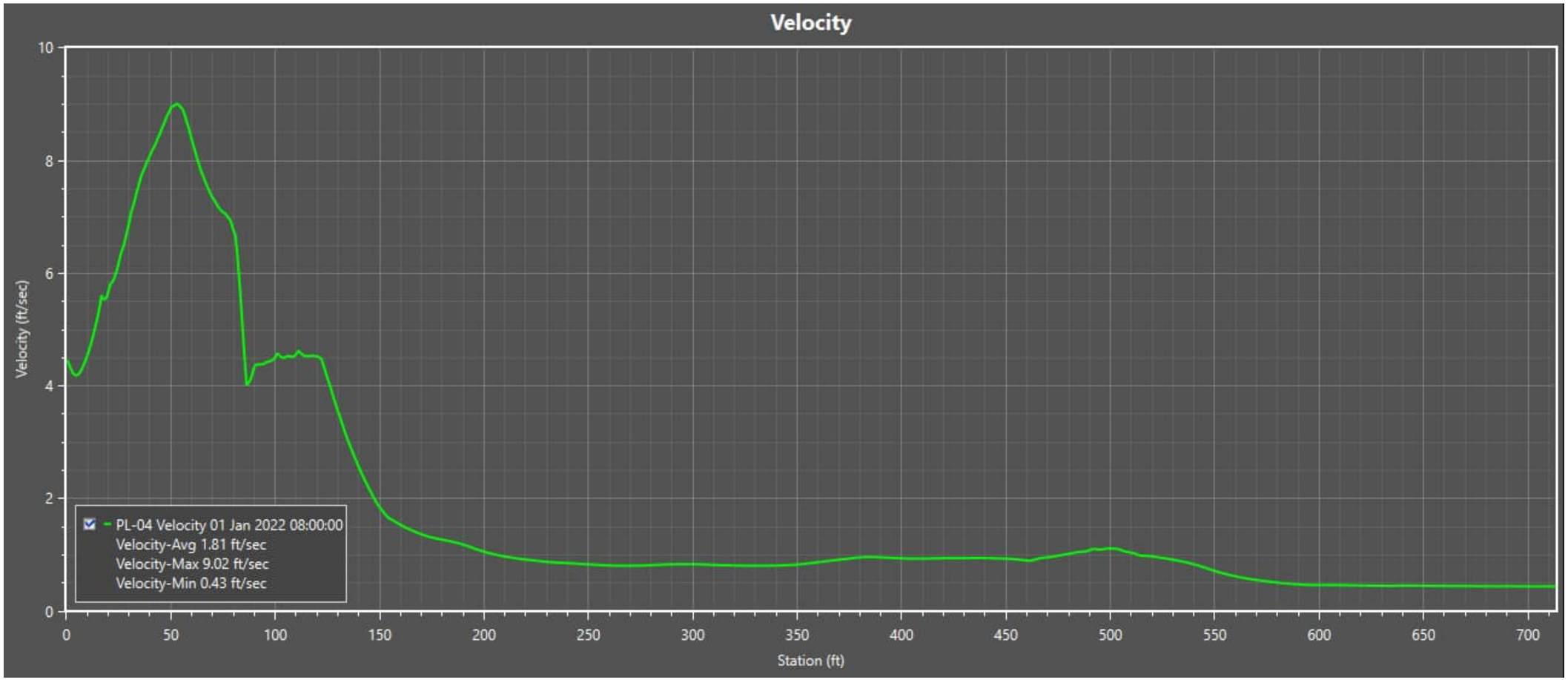
GeoHECRAS 2D Modeling Results: Proposed **Conditions, 25**-YR Flood



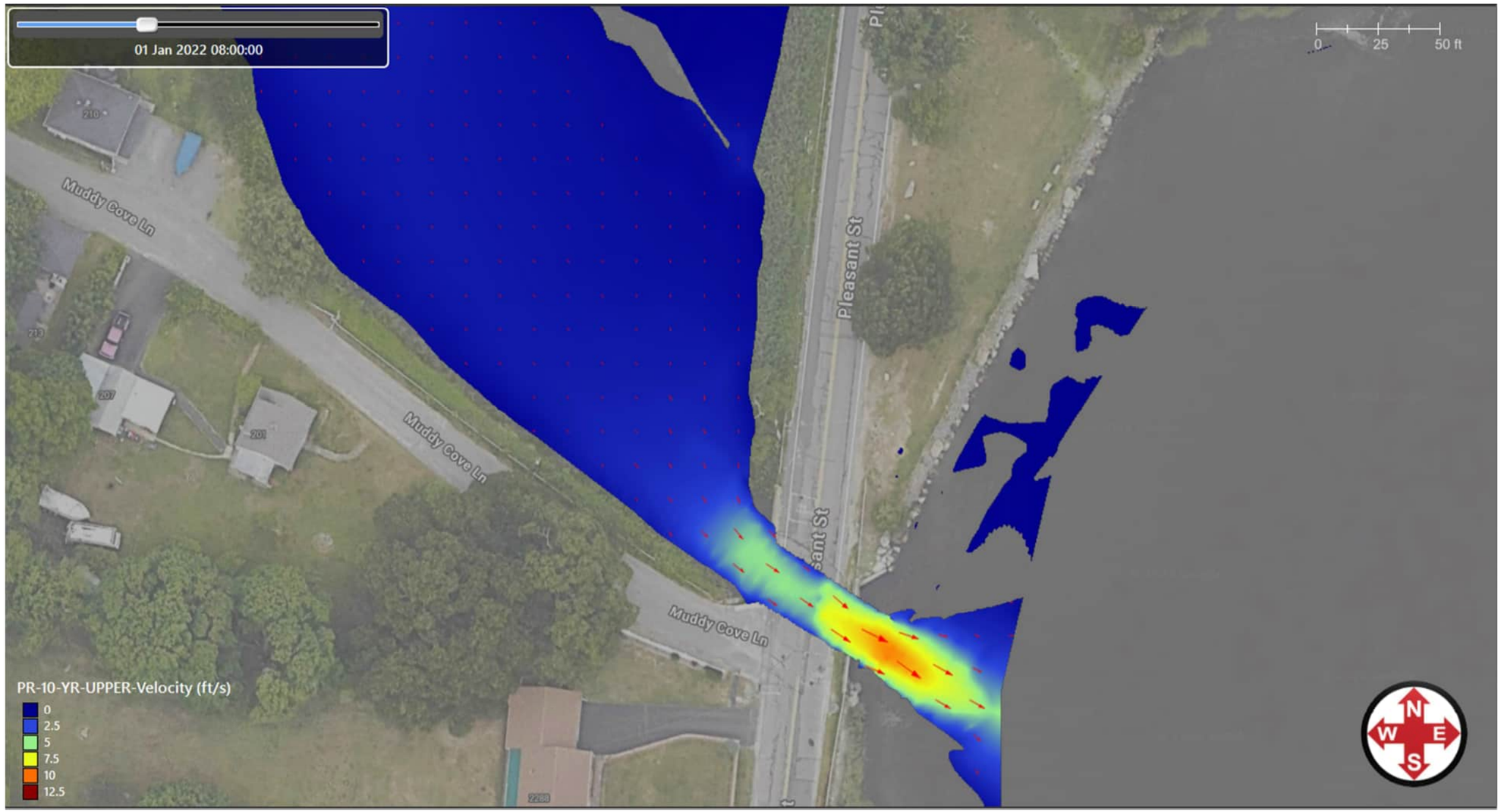
GeoHECRAS 2D Modeling Results: Proposed **Conditions, 25**-YR Flood



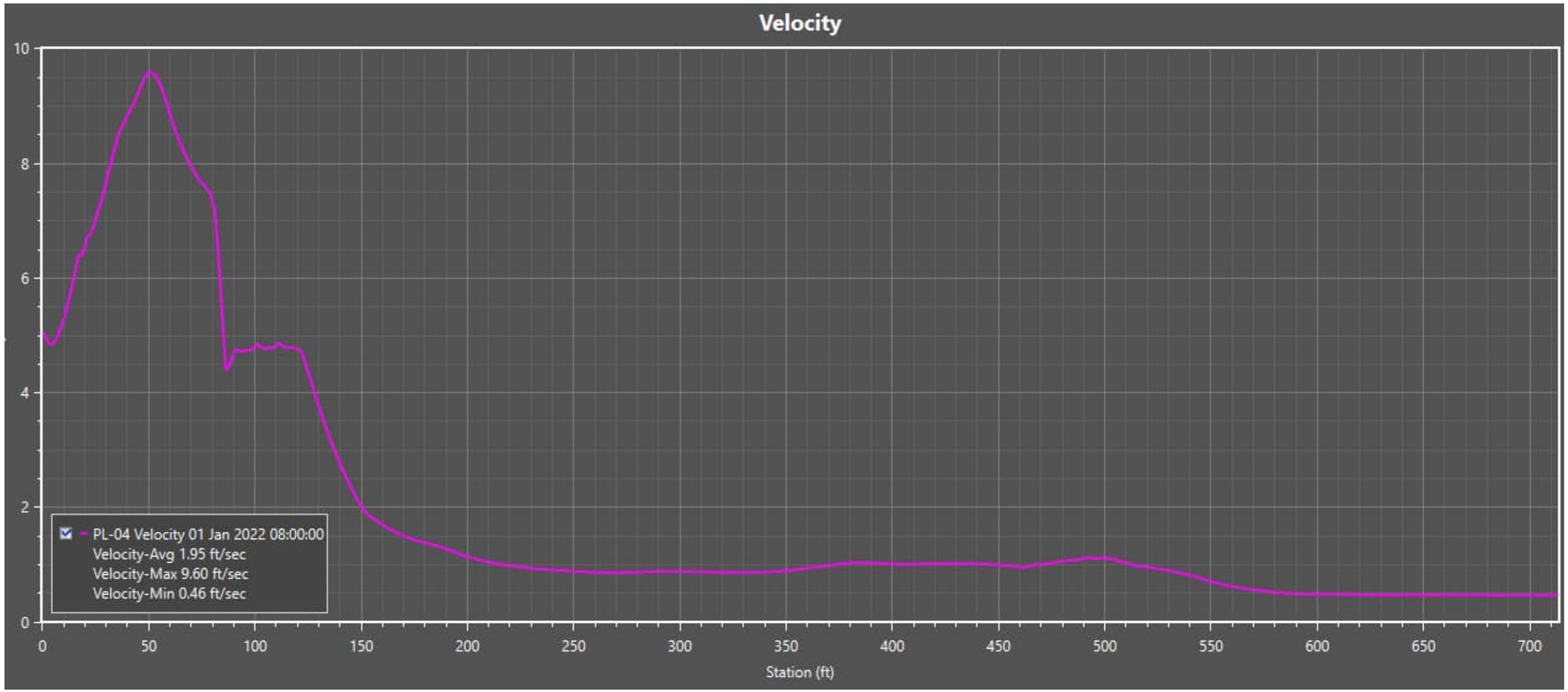
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** 50-YR Flood



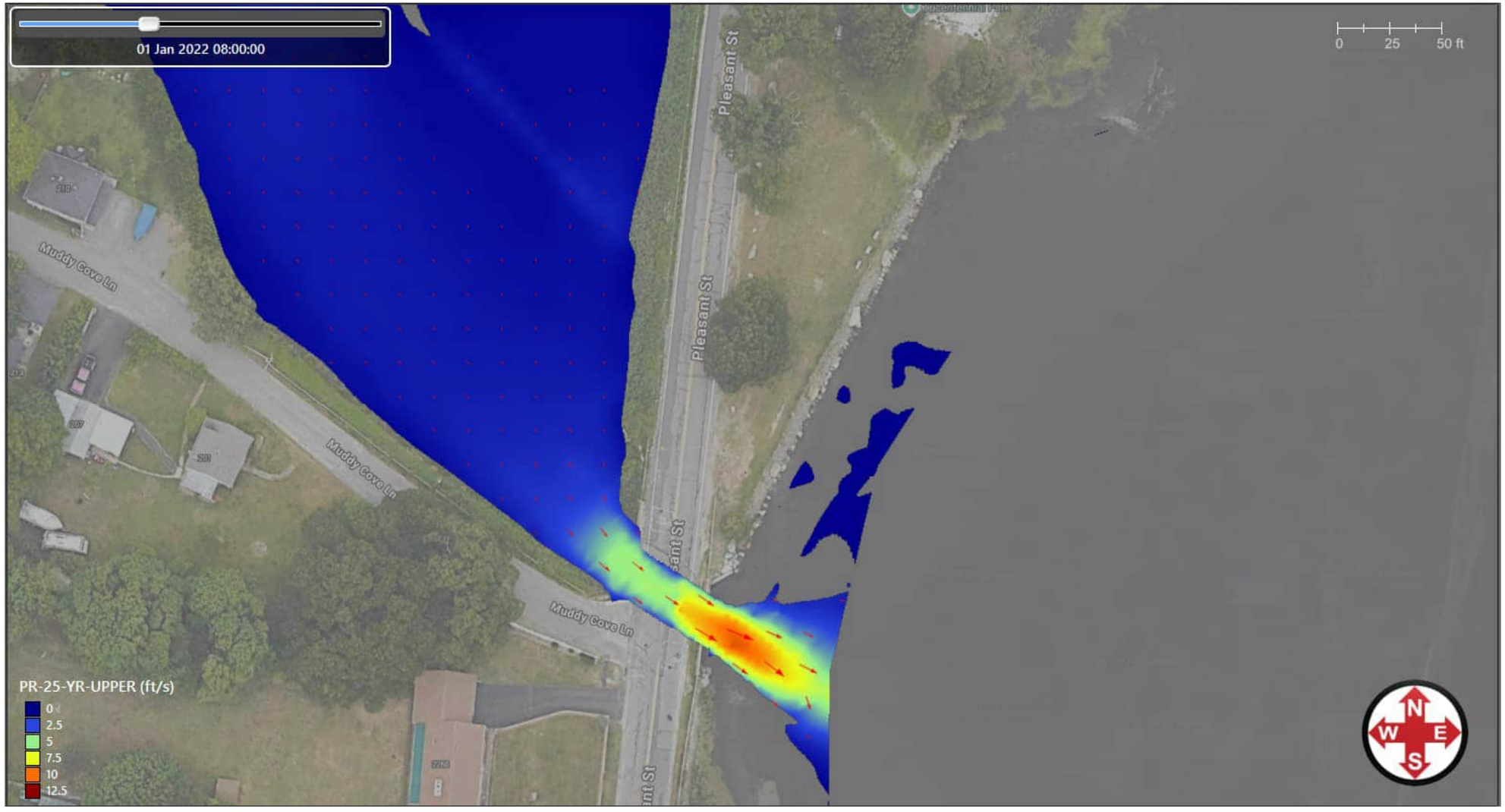
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** 50-YR Flood



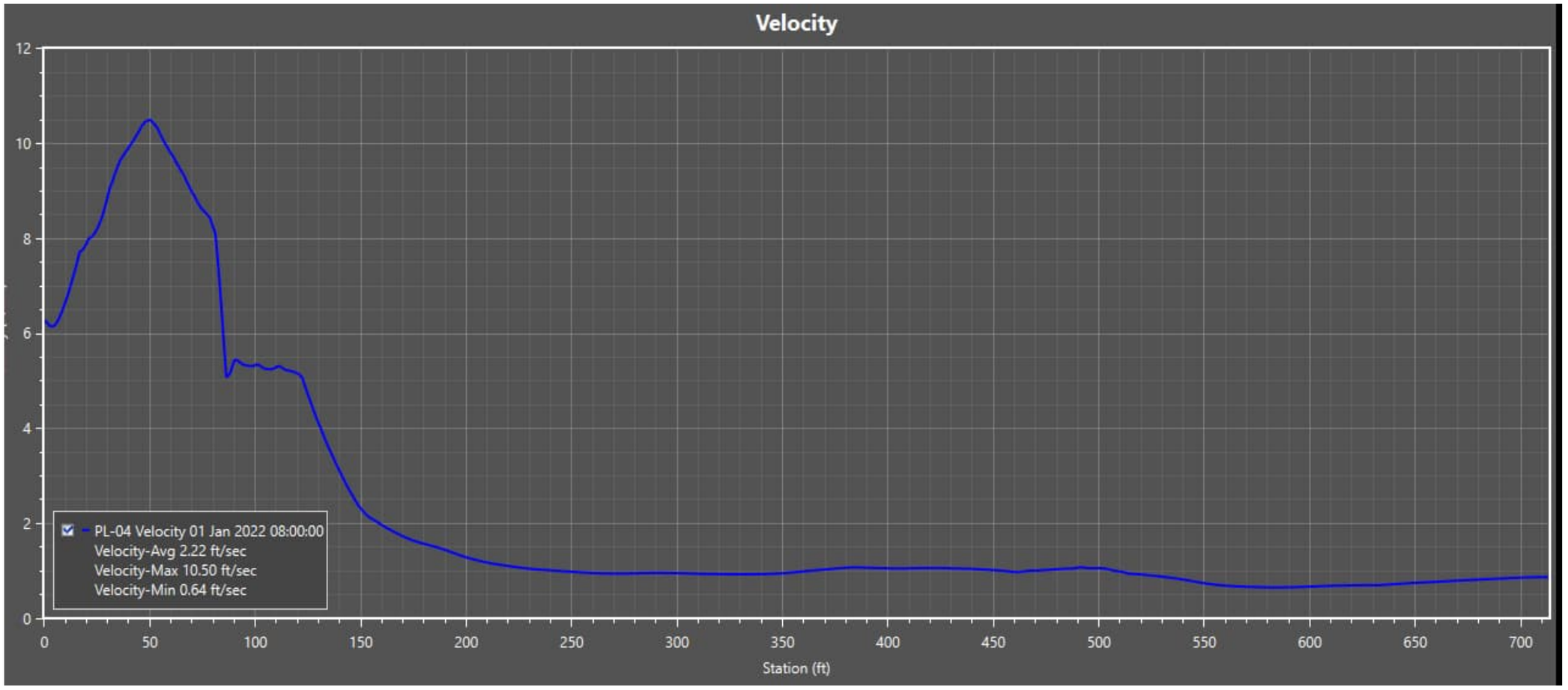
GeoHECRAS 2D Modeling Results: Proposed Conditions, Upper 10-YR Flood



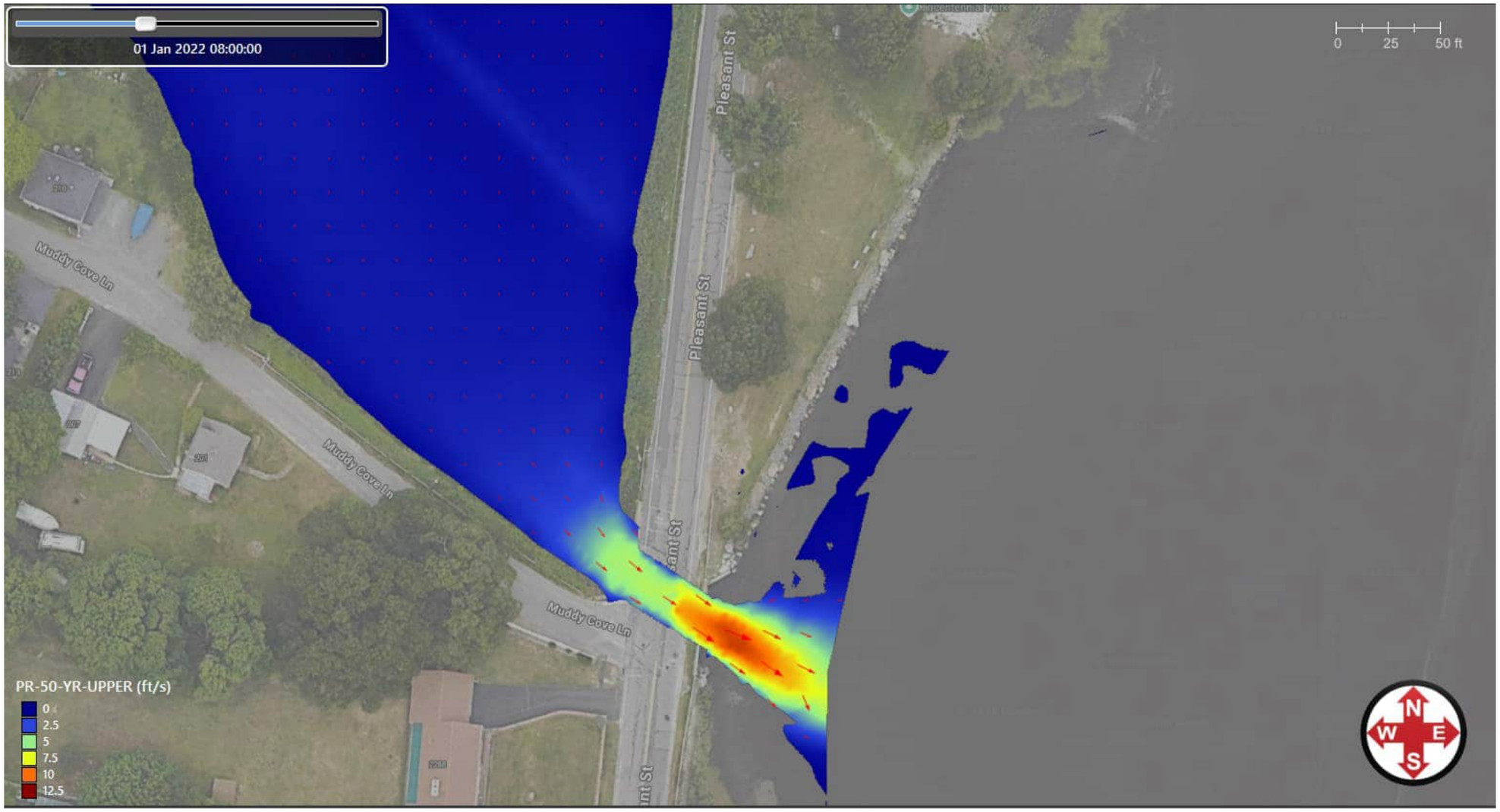
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** Upper 10-YR Flood



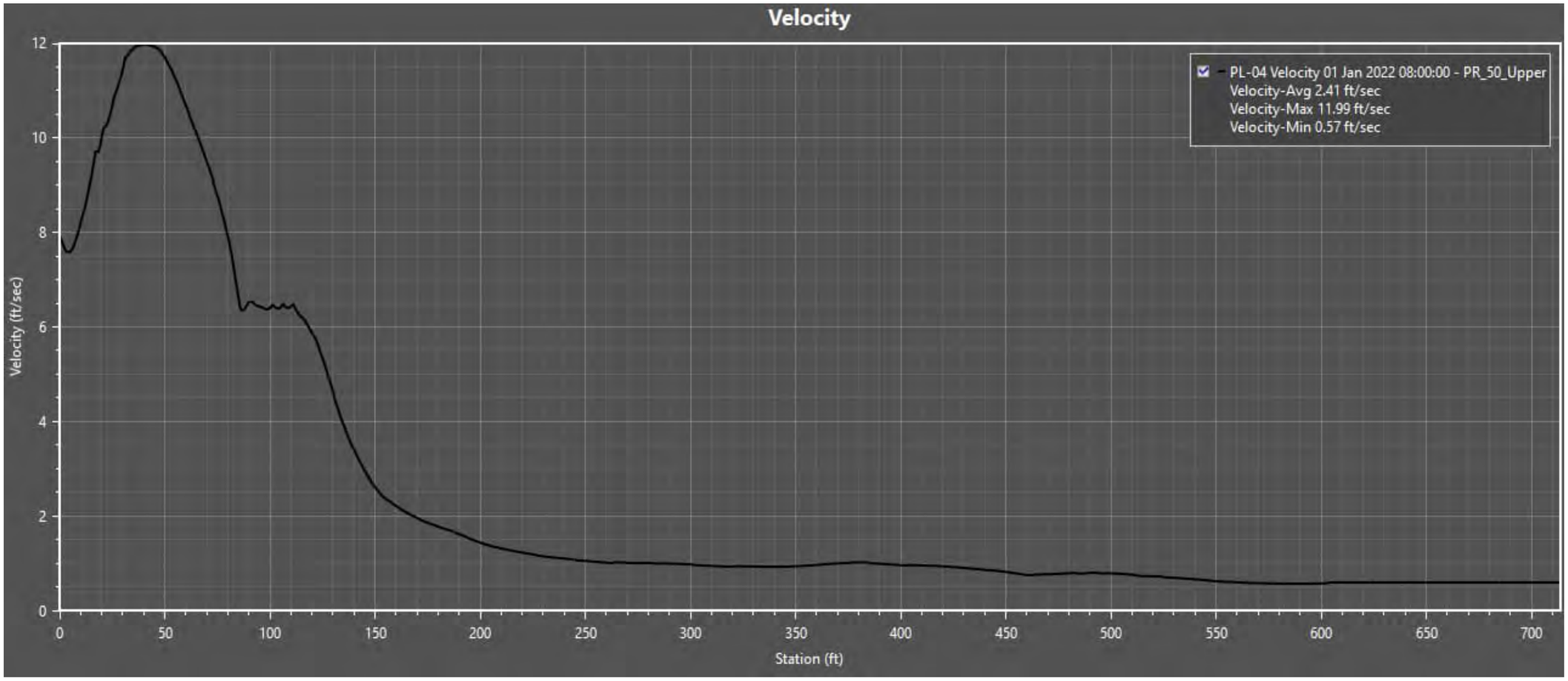
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** Upper 25-YR Flood



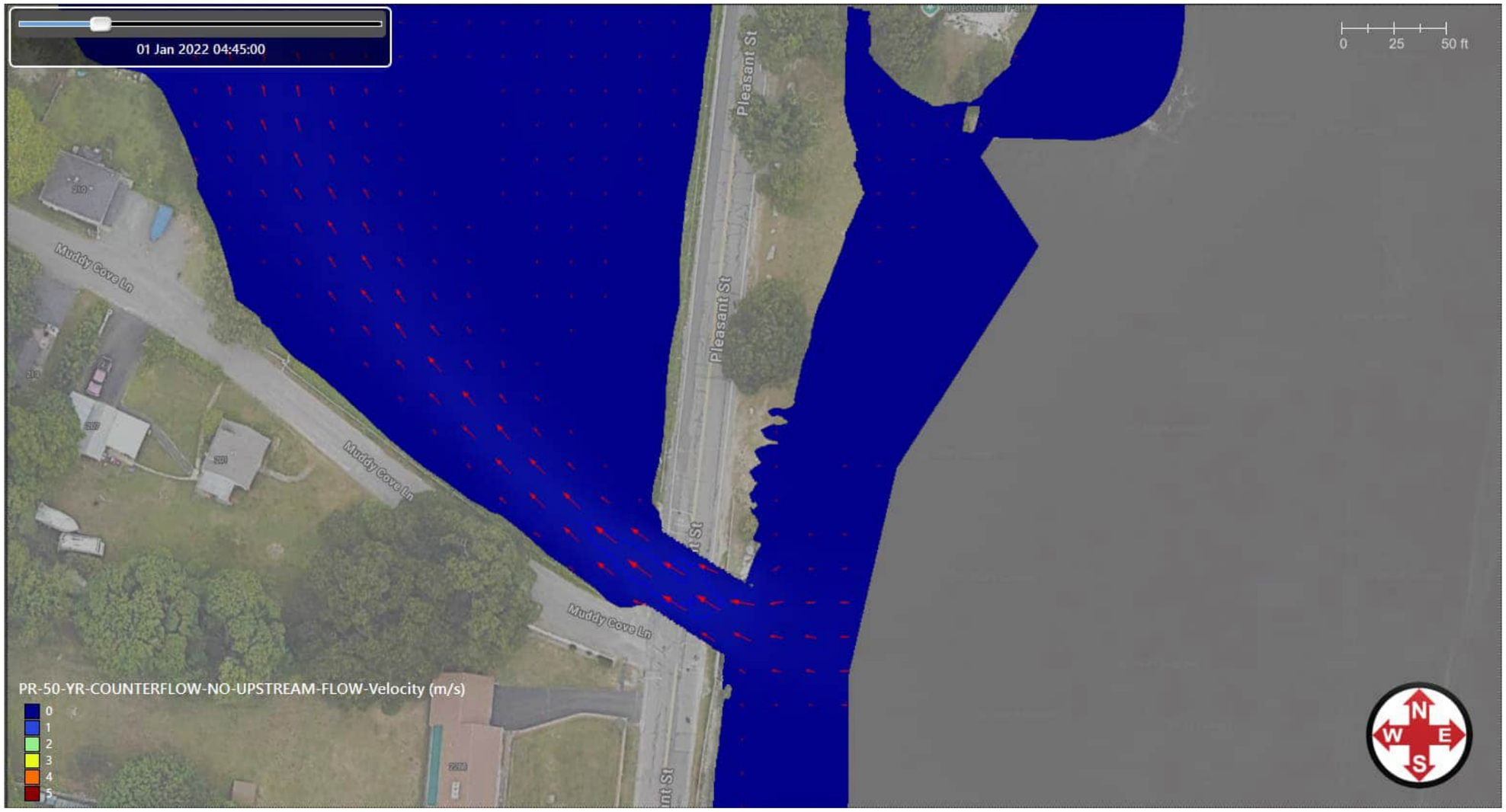
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** Upper 25-YR Flood



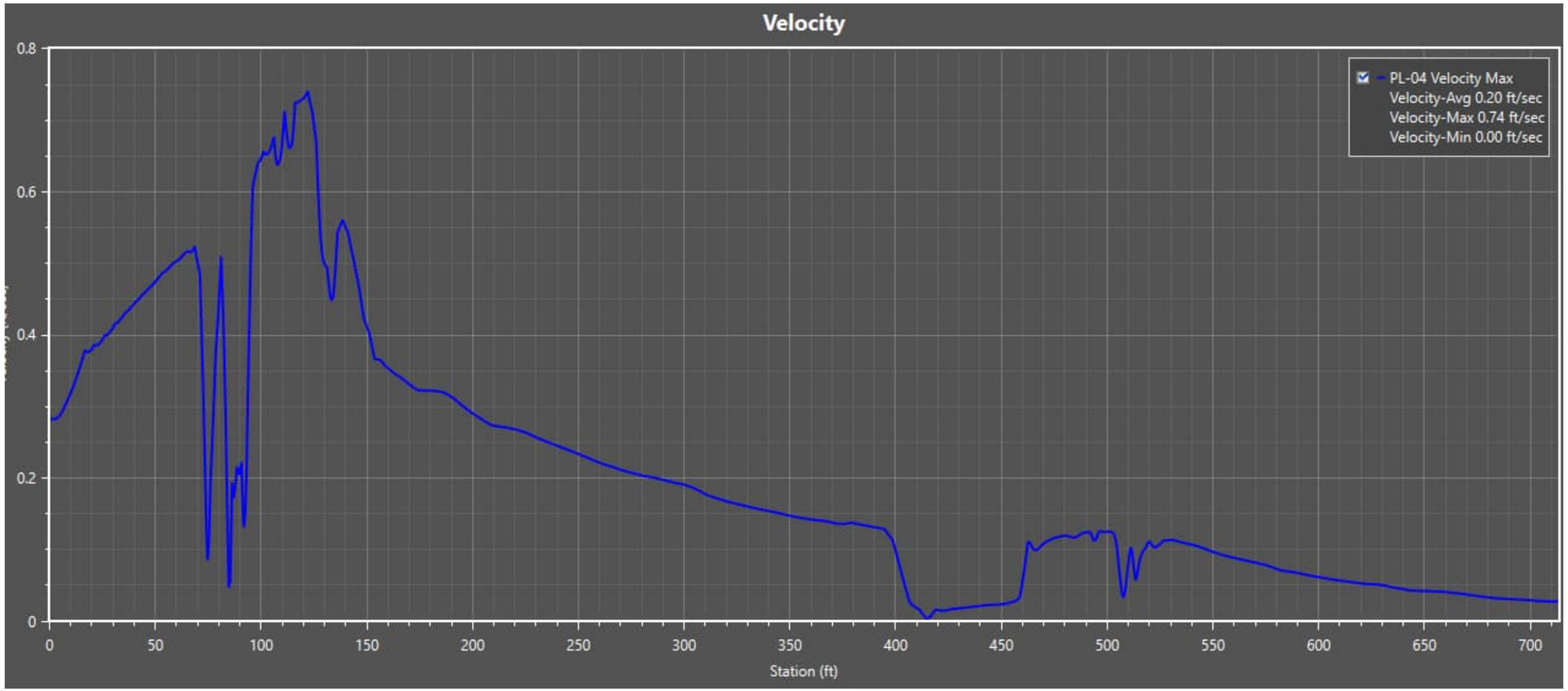
GeoHECRAS 2D Modeling Results: Proposed **Conditions,** Upper 50-YR Flood



GeoHECRAS 2D Modeling Results: Proposed **Conditions,** Upper 50-YR Flood



GeoHECRAS 2D Modeling Results: Proposed **Conditions,** 50-YR Counter**f**low



GeoHECRAS 2D Modeling Results: Proposed **Conditions,** 50-YR Counter**fl**ow

APPENDIX D

SCOUR COMPUTATIONS

Existing Scour Computations

Hydraulic Analysis Report: Existing Conditions

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25
Scour Check Flood Return Frequency:	50

2. Determine routine

$v_C = K_u \times {y_1}^{1/6} \times {D_{50}}^{1/3}$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	2.56	2.79
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	1.85	1.87
V_0 (ft/s)	1.13	1.25
V_c - V_0	0.72	0.62
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = V_C>V_0; Live = V_C<V_0

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$y_s = y_2 - y_0$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	182.00	220
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	2.21	2.44
y_2 (ft)	3.31	3.89

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	1.10	1.45

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$y_{max} = \alpha_B \times y_c$ Equation 4

y_{max} = Maximum flow depth resulting fromabutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	182.00	26.00	7.00	220.00	26.00	8.46
Approach (q_1)	182.00	56.70	3.21	220.00	58.20	3.78

	25-Year	50-Year	
q_{2c} / q_1	2.18	2.24	
α_B	1.90	1.85	
y_c (ft)	3.59	4.22	Equation 5
y_0 (ft)	2.21	2.44	
y_{max} (ft)	6.81	7.80	Equation 4

3. Calculate Abutment Scour Depth

$y_s = y_{max} - y_0$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year	
y_{max} (ft)	6.81	7.80	
y_0 (ft)	2.21	2.44	
y_s (ft)	4.60	5.36	Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	4.60	5.36

Hydraulic Analysis Report: Existing Conditions

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25
Scour Check Flood Return Frequency:	50

2. Determine routine

$$v_C = K_u \times y_1^{1/6} \times D_{50}^{1/3}$$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	6.50	6.51
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	2.16	2.16
V_0 (ft/s)	0.21	0.28
V_c - V_0	1.95	1.88
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = V_C>V_0; Live = V_C<V_0

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$$y_s = y_2 - y_0$$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	182.00	220.00
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	8.10	8.11
y_2 (ft)	3.31	3.89

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	0.00	0.00

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$$y_{max} = \alpha_B \times y_c$$ Equation 4

y_{max} = Maximum flow depth resulting from abutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	182.00	26.00	7.00	220.00	26.00	8.46
Approach (q_1)	182.00	85.40	2.13	220.00	85.60	2.57

	25-Year	50-Year	
q_{2c} / q_1	3.28	3.29	
α_B	1.40	1.40	
y_c (ft)	3.59	4.22	Equation 5
y_o (ft)	8.10	8.11	
y_{max} (ft)	5.02	5.91	Equation 4

3. Calculate Abutment Scour Depth

$$y_s = y_{max} - y_o$$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year	
y_{max} (ft)	5.02	5.91	
y_o (ft)	8.10	8.11	
y_s (ft)	-3.08	-2.20	Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	0.00	0.00

Pressure Scour

$$\frac{t}{h_b} = 0.5\left(\frac{h_b \times h_t}{h_u^2}\right)^{0.2}\left(1 - \frac{h_w}{h_t}\right)^{-0.1}$$ Equation 6.16

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
h_t = Distance from the water surface to the lower face of the bridge girders (ft)
h_w = Weir flow height
h_u = Upstream channel flow depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
h_t (ft)	0.78	0.78
h_w (ft)	0.00	0.00
h_u (ft)	8.76	8.76
t (ft)	2.41	2.41

$$y_s = y_2 + t + h_b$$ Equation 6.14

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
y_2 = Average equilibrium depth in the contracted section after contraction scour, ft
y_s = Pressure Scour Depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
t	2.41	2.41
y_2 (ft)	3.31	3.89
y_s (ft)	-2.26	-1.68

	25-Year	50-Year
Pressure Scour Y_s =	0.00	0.00

Existing Scour Computations (Upper Limits)

Hydraulic Analysis Report: Existing Conditions (Upper Limit)

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25 Upper
Scour Check Flood Return Frequency:	50 Upper

2. Determine routine

$$v_C = K_u \times y_1^{1/6} \times D_{50}^{1/3}$$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	3.55	3.95
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	1.95	1.98
V_0 (ft/s)	1.60	1.72
V_c - V_0	0.35	0.26
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = $V_C > V_0$; Live = $V_C < V_0$

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$$y_s = y_2 - y_0$$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	383.00	478.00
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	3.23	3.77
y_2 (ft)	6.26	7.57

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	3.03	3.80

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$y_{max} = \propto_B \times y_c$ Equation 4

y_{max} = Maximum flow depth resulting from abutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	383.00	26.00	14.73	478.00	26.00	18.38
Approach (q_1)	383.00	63.93	5.99	478.00	66.95	7.14

	25-Year	50-Year	
q_{2c} / q_1	2.46	2.58	
α_B	1.70	1.60	
y_c (ft)	6.78	8.20	Equation 5
y_o (ft)	3.23	3.77	
y_{max} (ft)	11.53	13.13	Equation 4

3. Calculate Abutment Scour Depth

$y_s = y_{max} - y_0$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year	
y_{max} (ft)	11.53	13.13	
y_o (ft)	3.23	3.77	
y_s (ft)	8.30	9.36	Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	8.30	9.36

Hydraulic Analysis Report: Existing Conditions (Upper Limit)

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25 Upper
Scour Check Flood Return Frequency:	50 Upper

2. Determine routine

$$v_C = K_u \times {y_1}^{1/6} \times {D_{50}}^{1/3}$$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	6.56	6.38
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	2.16	2.15
V_0 (ft/s)	0.54	0.67
V_c - V_0	1.62	1.48
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = $V_C > V_0$; Live = $V_C < V_0$

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$$y_s = y_2 - y_0$$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	383.00	478.00
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	8.16	8.24
y_2 (ft)	6.26	7.57

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	0.00	0.00

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$$y_{max} = \alpha_B \times y_c$$ Equation 4

y_{max} = Maximum flow depth resulting from abutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	383.00	26.00	14.73	478.00	26.00	18.38
Approach (q_1)	383.00	85.30	4.49	478.00	85.60	5.58

	25-Year	50-Year	
q_{2c} / q_1	3.28	3.29	
α_B	1.40	1.40	
y_c (ft)	6.78	8.20	Equation 5
y_o (ft)	8.16	8.24	
y_{max} (ft)	9.50	11.48	Equation 4

3. Calculate Abutment Scour Depth

$$y_s = y_{max} - y_0$$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year	
y_{max} (ft)	9.50	11.48	
y_o (ft)	8.16	8.24	
y_s (ft)	1.34	3.24	Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	1.34	3.24

Pressure Scour

$$\frac{t}{h_b} = 0.5\left(\frac{h_b \times h_t}{h_u^2}\right)^{0.2}\left(1 - \frac{h_w}{h_t}\right)^{-0.1}$$ Equation 6.16

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
h_t = Distance from the water surface to the lower face of the bridge girders (ft)
h_w = Weir flow height
h_u = Upstream channel flow depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
h_t (ft)	0.84	0.98
h_w (ft)	0.00	0.00
h_u (ft)	8.82	8.96
t (ft)	2.44	2.50

$$y_s = y_2 + t + h_b$$ Equation 6.14

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
y_2 = Average equilibrium depth in the contracted section after contraction scour, ft
y_s = Pressure Scour Depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
t	2.44	2.50
y_2 (ft)	6.26	7.57
y_s (ft)	0.72	2.09

	25-Year	50-Year
Pressure Scour Y_s =	0.72	2.09

Proposed Scour Computations

Hydraulic Analysis Report: Proposed Conditions

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25
Scour Check Flood Return Frequency:	50

2. Determine routine

$$v_C = K_u \times y_1^{1/6} \times D_{50}^{1/3}$$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	2.60	2.88
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	1.85	1.88
V_0 (ft/s)	1.16	1.26
V_c - V_0	0.69	0.62
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = $V_C > V_0$; Live = $V_C < V_0$

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$$y_s = y_2 - y_0$$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	182.00	220.00
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	2.35	2.65
y_2 (ft)	3.31	3.89

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	0.96	1.24

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$$y_{max} = \alpha_B \times y_c$$ Equation 4

y_{max} = Maximum flow depth resulting fromabutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	182.00	26.00	7.00	220.00	26.00	8.46
Approach (q_1)	182.00	56.70	3.21	220.00	58.20	3.78

	25-Year	50-Year	
q_{2c} / q_1	2.18	2.24	
α_B	1.90	1.80	
y_c (ft)	3.59	4.22	Equation 5
y_o (ft)	2.35	2.65	
y_{max} (ft)	6.81	7.59	Equation 4

3. Calculate Abutment Scour Depth

$$y_s = y_{max} - y_0$$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year	
y_{max} (ft)	6.81	7.59	
y_o (ft)	2.35	2.65	
y_s (ft)	4.46	4.94	Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	4.46	4.94

Hydraulic Analysis Report: Proposed Conditions

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25
Scour Check Flood Return Frequency:	50

2. Determine routine

$$v_C = K_u \times y_1^{1/6} \times D_{50}^{1/3}$$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	6.47	6.49
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	2.15	2.16
V_0 (ft/s)	0.21	0.28
V_c - V_0	1.94	1.88
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = $V_C > V_0$; Live = $V_C < V_0$

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$$y_s = y_2 - y_0$$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	182.00	220.00
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	8.09	8.10
y_2 (ft)	3.31	3.89

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	0.00	0.00

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$$y_{max} = \alpha_B \times y_c$$ Equation 4

y_{max} = Maximum flow depth resulting from abutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	182.00	26.00	7.00	220.00	26.00	8.46
Approach (q_1)	182.00	85.40	2.13	220.00	85.60	2.57

	25-Year	50-Year	
q_{2c} / q_1	3.28	3.29	
α_B	1.40	1.40	
y_c (ft)	3.59	4.22	Equation 5
y_o (ft)	8.09	8.10	
y_{max} (ft)	5.02	5.91	Equation 4

3. Calculate Abutment Scour Depth

$$y_s = y_{max} - y_0$$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year	
y_{max} (ft)	5.02	5.91	
y_o (ft)	8.09	8.10	
y_s (ft)	-3.07	-2.19	Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	0.00	0.00

Pressure Scour

$$\frac{t}{h_b} = 0.5\left(\frac{h_b \times h_t}{h_u^2}\right)^{0.2}\left(1 - \frac{h_w}{h_t}\right)^{-0.1}$$ Equation 6.16

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
h_t = Distance from the water surface to the lower face of the bridge girders (ft)
h_w = Weir flow height
h_u = Upstream channel flow depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
h_t (ft)	0.78	0.78
h_w (ft)	0.00	0.00
h_u (ft)	8.76	8.76
t (ft)	2.41	2.41

$$y_s = y_2 + t + h_b$$ Equation 6.14

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
y_2 = Average equilibrium depth in the contracted section after contraction scour, ft
y_s = Pressure Scour Depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
t	2.41	2.41
y_2 (ft)	3.31	3.89
y_s (ft)	-2.26	-1.68

	25-Year	50-Year
Pressure Scour Y_s =	0.00	0.00

Proposed Scour Computations (Upper Limits)

Hydraulic Analysis Report: Proposed Conditions (Upper Limit)

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25 Upper
Scour Check Flood Return Frequency:	50 Upper

2. Determine routine

$$v_C = K_u \times y_1^{1/6} \times D_{50}^{1/3}$$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	3.63	3.99
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	1.96	1.99
V_0 (ft/s)	1.60	1.75
V_c - V_0	0.36	0.24
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = $V_C > V_0$; Live = $V_C < V_0$

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$$y_s = y_2 - y_0$$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	383.00	478.00
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	3.51	3.96
y_2 (ft)	6.26	7.57

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	2.75	3.61

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$$y_{max} = \alpha_B \times y_c$$ Equation 4

y_{max} = Maximum flow depth resulting from abutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 8:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	383.00	26.00	14.73	478.00	26.00	18.38
Approach (q_1)	383.00	63.93	5.99	478.00	66.95	7.14

	25-Year	50-Year
q_{2c} / q_1	2.46	2.58
α_B	1.70	1.60
y_c (ft)	6.78	8.20
y_o (ft)	3.51	3.96
y_{max} (ft)	11.53	13.13

Equation 5

Equation 4

3. Calculate Abutment Scour Depth

$$y_s = y_{max} - y_o$$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year
y_{max} (ft)	11.53	13.13
y_o (ft)	3.51	3.96
y_s (ft)	8.02	9.17

Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	8.02	9.17

Countermeasures

1. Calculate Froude Numbers using Equation 1

$$\left(\frac{V}{(g \times y)^{1/2}}\right)$$ Equation 1

V= characteristic average velocity in the contracted section, ft/s (m/s) [Total Discharge through bridge (Q)/Cross Sectional Area (A)]
y= Flow depth in bridge opening, ft (m)
g= gravitational acceleration, ft/s^2 (m/s^2)

	50-Year
V (ft/s)	11.99
y (ft)	3.96
g ft/s^2	32.20
FR #	1.06

HEC -23 Equation 14.1

$$\frac{D_{50}}{y} = \frac{K}{(S_s - 1)}\left[\frac{V^2}{g \times y}\right]^{0.14}$$ Equation 14.2

D_{50} = median stone diameter, ft (m)
V= characteristic average velocity in the contracted section, ft/s (m/s)
S_s = specific gravity of rock riprap
y= Flow depth in bridge opening, ft (m)
g= gravitational acceleration, ft/s^2 (m/s^2)
K= 0.61 for a spill-through abutment
0.69 for a vertical wall abutment

Abutment Type: Vertical Wall

V=	11.99	ft/s
S_s =	2.7	
y=	3.96	ft
g=	32.2	ft/s^2
K=	0.7	
D_{50} =	1.684	ft
D_{50} =	20.21	in

Thickness =1.5D_{50} or D_{100}

Thickness	42.00	in

Table 4.1. Minimum and Maximum Allowable Particle Size in Inches.

Nominal Riprap Class by Median Particle Diameter		d_{15}		d_{50}		d_{85}		d_{100}
Class	Size	Min	Max	Min	Max	Min	Max	Max
I	6 in	3.7	5.2	5.7	6.8	7.8	9.2	12.0
II	9 in	5.5	7.8	8.5	10.5	11.5	14.0	18.0
III	12 in	7.3	10.5	11.5	14.0	15.5	18.5	24.0
IV	15 in	9.2	13.0	14.5	17.5	19.5	23.0	30.0
V	18 in	11.0	15.5	17.0	20.5	23.5	27.5	36.0
VI	21 in	13.0	18.5	20.0	24.0	27.5	32.5	42.0
VII	24 in	14.5	21.0	23.0	27.5	31.5	37.0	48.0
VIII	30 in	18.5	26.0	28.5	34.5	39.0	46.0	60.0
IX	36 in	22.0	31.5	34.0	41.5	47.0	55.5	72.0
X	42 in	25.5	36.5	40.0	48.5	54.5	64.5	84.0

Note: Particle size d corresponds to the intermediate ("B") axis of the particle.

Hydraulic Analysis Report: Proposed Conditions (Upper Limit)

Contraction Scour

1. Determine return fredquency for the Scour Design Flood and Scour Check Flood using Table 1.3.4-1:

Highway Functional Classification:	Urban Local Street
Scour Design Flood Return Frequency:	25 Upper
Scour Check Flood Return Frequency:	50 Upper

2. Determine routine

$$v_C = K_u \times y_1^{1/6} \times D_{50}^{1/3}$$ Equation 1: Critical Velocity

v_c = Critical Velocity (ft/s)
K_u = 11.17 (Constant)
y_1 = Average Depth of flow upstream of the bridge (ft)
D_{50} = Particle Size (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

Parameters	25-Year Channel	50-Year Channel
K_u	11.17	11.17
y_1(ft)	6.51	6.56
D_{50} (ft)	0.0028	0.0028
V_c (ft/s)	2.16	2.16
V_0 (ft/s)	0.56	0.71
V_c - V_0	1.60	1.45
Routine:	CLEAR	CLEAR

Equation 1
v_o = Veclocity in the approach section(ft/s) [Value is from the model]

Clear = $V_C > V_0$; Live = $V_C < V_0$

3. Calculate Contraction Sour Based on Routine

$$y_2 = \left[\frac{Q_2^2 \times K_u}{D_m^{2/3} \times W_2^2}\right]^{3/7}$$ Equation 2: Average Equilibrium Depth

$$y_s = y_2 - y_0$$ Equation 3: Contraction Scour

y_2 = Average equilibrium depth in the contracted section after contraction scour, ft (m)
Q = Discharge through the bridge or on the set-back overbank area at the bridge associated with the width W, ft3/s (m3/s)
D_m = Diameter of the smallest nontransportable particle in the bed material (1.25 D50) in the contracted section, ft (m)
W = Bottom width of the contracted section less pier widths, ft (m)
y_o = Average existing depth in the contracted section, ft (m)
K_u = 0.0077
K_u = 0.025
y_s = Contraction Scour, ft (m)

Clear-Water Routine		
Channel Parameters	25-Year	50-Year
K_u	0.0077	0.0077
Q_2	383.00	478.00
D_m	0.0035	0.0035
W_2	26.00	26.00
y_0 (ft)	8.13	8.17
y_2 (ft)	6.26	7.57

Equation 2
Equation 3

	25-Year	50-Year
Contraction Scour Y_s =	0.00	0.00

Abutment Scour

1. Determine Computation Type and Method

Computation Method: NCHRP 24-20 Method

Scour Condition Clear Water

2. Calculate Total Scour at the Abutment

$$y_{max} = \alpha_B \times y_c$$ Equation 4

y_{max} = Maximum flow depth resulting from abutment scour (ft)
α_B = Amplification factor for clear water conditions
y_c = Flow dpeth including clear water contraction scour (ft)

Time Step: 16:00
Approach Section: PL-01 - 52' Upstream of Bridge

$$y_c = \left(\frac{q_{2f}}{K_u D_{50}^{1/3}}\right)^{6/7}$$ Equation 5

q_{2c} = Unit discharge in the constricted opening (ft^2/s)
K_u = 11.17
D_{50} = Particle Size (ft)

	25-Year			50-Year		
	CFS	Width	Unit Discharge (ft^2/s)	CFS	Width (ft)	Unit Discharge (ft^2/s)
Bridge (q_{2c})	383.00	26.00	14.73	478.00	26.00	18.38
Approach (q_1)	383.00	85.30	4.49	478.00	85.60	5.58

	25-Year	50-Year	
q_{2c} / q_1	3.28	3.29	
α_B	1.40	1.40	
y_c (ft)	6.78	8.20	Equation 5
y_0 (ft)	8.13	8.17	
y_{max} (ft)	9.50	11.48	Equation 4

3. Calculate Abutment Scour Depth

$$y_s = y_{max} - y_0$$ Equation 6

y_s = Abutment scour depth, ft (m)

	25-Year	50-Year	
y_{max} (ft)	9.50	11.48	
y_0 (ft)	8.13	8.17	
y_s (ft)	1.37	3.31	Equation 6

	25-Year	50-Year
Abutment Scour Y_s =	1.37	3.31

Pressure Scour

$$\frac{t}{h_b} = 0.5\left(\frac{h_b \times h_t}{h_u^2}\right)^{0.2}\left(1 - \frac{h_w}{h_t}\right)^{-0.1}$$ Equation 6.16

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
h_t = Distance from the water surface to the lower face of the bridge girders (ft)
h_w = Weir flow height
h_u = Upstream channel flow depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
h_t (ft)	0.84	0.90
h_w (ft)	0.00	0.00
h_u (ft)	8.82	8.88
t (ft)	2.44	2.47

$$y_s = y_2 + t + h_b$$ Equation 6.14

t = Seperation zone thickness (ft)
h_b = Vertical size of the bridge opening prior to scour, (ft)
y_2 = Average equilibrium depth in the contracted section after contraction scour, ft
y_s = Pressure Scour Depth (ft)

	25-Year	50-Year
h_b (ft)	7.98	7.98
t	2.44	2.47
y_2 (ft)	6.26	7.57
y_s (ft)	0.72	2.06

	25-Year	50-Year
Pressure Scour Y_s =	0.72	2.06

APPENDIX E

SITE PHOTOS

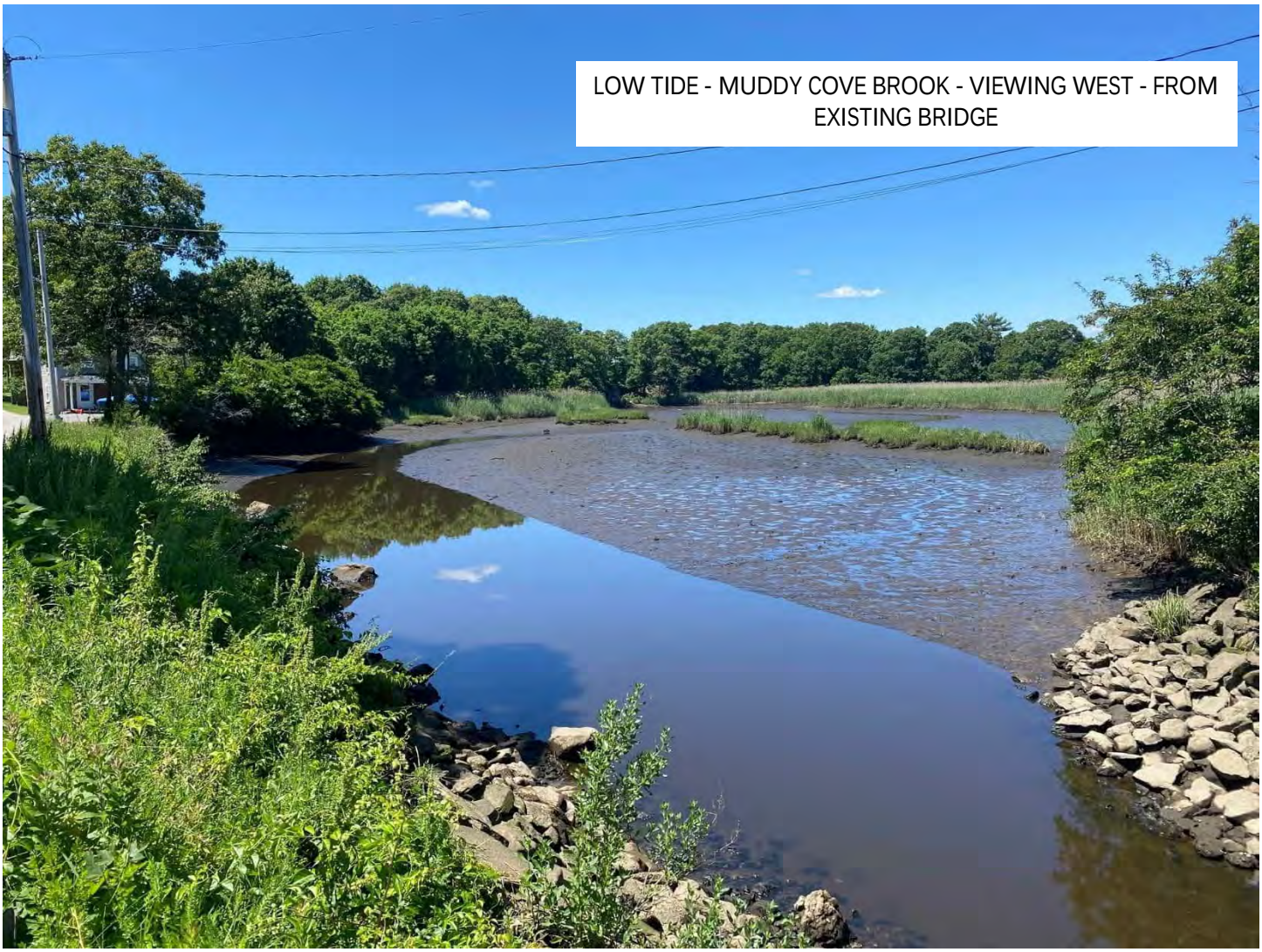


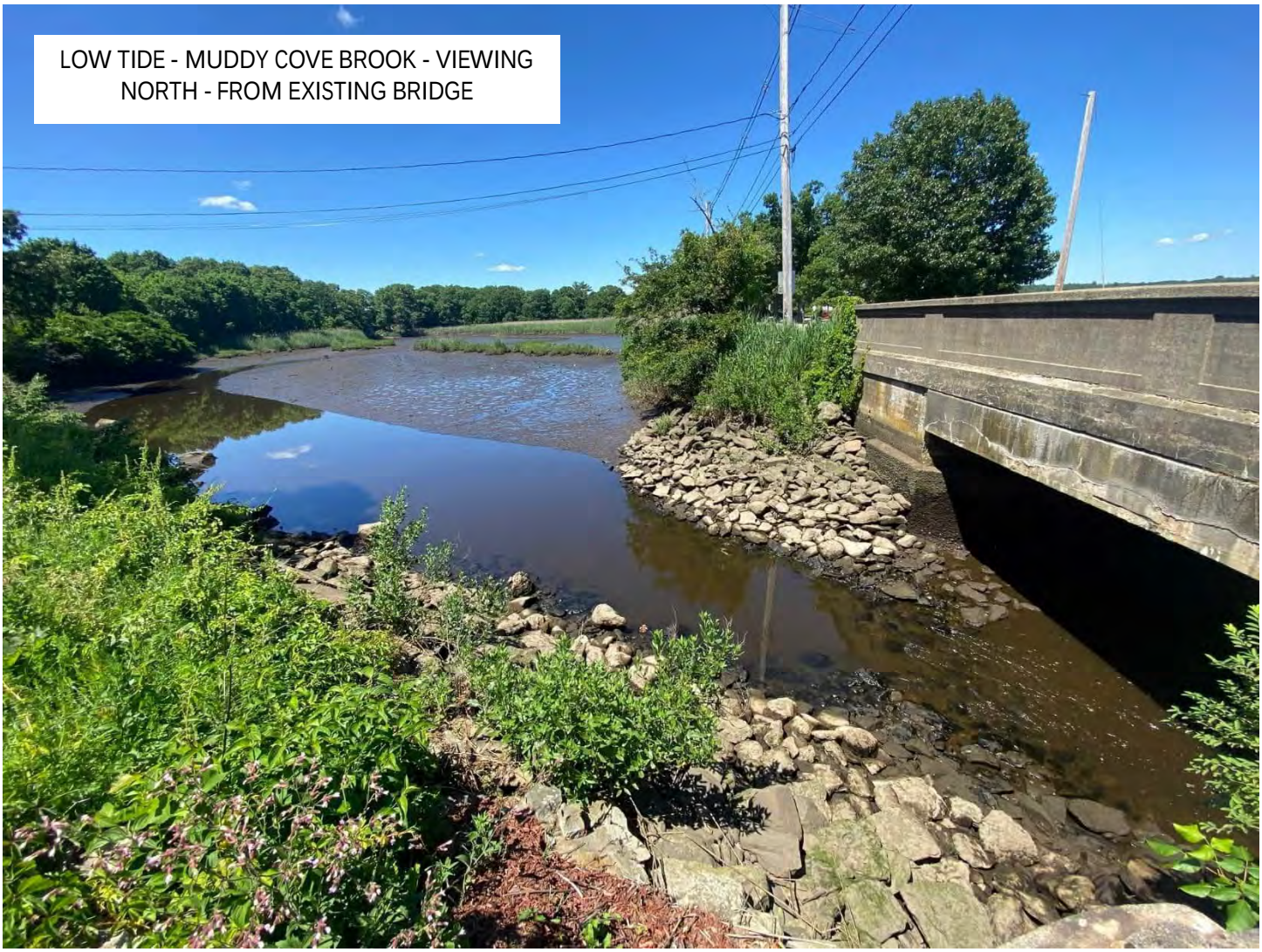
HIGH TIDE- TAUNTON RIVER – VIEWING NORTH


HIGH TIDE - DOWNSTREAM FACE (TAUNTON RIVER SIDE)


HIGH TIDE - MUDDY COVE BROOK - VIEWING WEST -
FROM EXISTING BRIDGE


LOW TIDE - DOWNSTREAM FACE (TAUNTON RIVER SIDE)


LOW TIDE - MUDDY COVE BROOK - VIEWING WEST - FROM EXISTING BRIDGE


LOW TIDE - MUDDY COVE BROOK - VIEWING NORTH - FROM EXISTING BRIDGE

APPENDIX F

GEOTECHNICAL REPORT

GEI Consultants

Consulting Engineers and Scientists

June 10, 2022
Project 2200710

Mr. Todd Warzecki, P.E., Senior Project Manager
BETA Group, Inc.
701 George Washington Highway
Lincoln, RI 02865

Dear Mr. Warzecki:

Re: **Soil Sample Test Results**
Pleasant Street over Muddy Cove
Bridge No. D-08-002 (3L9)
Dighton, Massachusetts

This letter presents the results of laboratory testing on soil samples collected from the upland banks and channel of Muddy Cove Brook and channel of the Taunton River near the Pleasant Street Bridge (MassDOT Bridge No. D-08-002) in Dighton, Massachusetts. We understand that these test results will be used in the preparation of a Hydraulic Study Report for the project to replace the bridge.

Four sediment samples (SS-1 through SS-4) were collected by GEI on May 13, 2022. Pleasant Street Bridge is a single span tidal bridge. Samples were collected in accordance with the locations outlined in Figure 1.3.3-6 of the MassDOT LRFD Bridge Manual (2020). The as-sampled sediment locations are shown on the attached Fig. 1.

The samples collected for the scour evaluation were tested by GEI in our Woburn, Massachusetts laboratory for particle size analyses in accordance with the requirements of section 1.3.3.5 of the MassDOT LRFD Bridge Manual (2020). The results of our tests are presented on the Particle Size Distribution Reports in Attachment A. D_{50} and D_{85} particle sizes for the samples are provided in the Particle Size Distribution Reports.

Please call Steve at 781-264-8905 if you have any questions.

Sincerely,

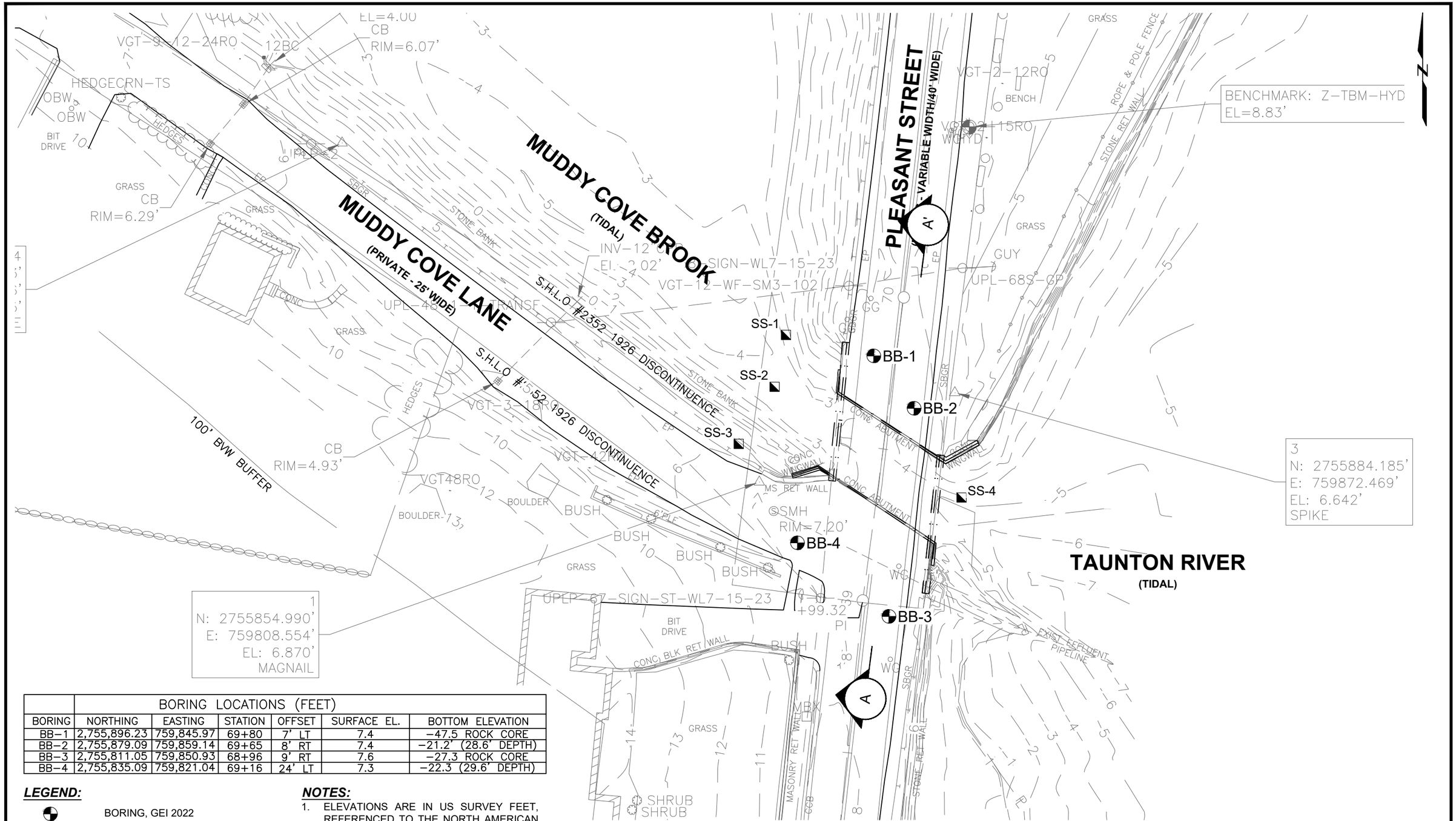
GEI CONSULTANTS, INC.

Alex Juliano
Geotechnical Engineer

Stephen J. Sarandis, P.E.
Project Manager

SJS/AJ:jam
Enclosures: Fig. 1 – Boring Location Plan
Attachment A: GEI Particle Size Distribution Reports (4 pages)

B:\Working\BETA GROUP\2200710 Pleasant Street Over Muddy Cove\10_Scour Letter\2200710 Pleasant St Over Muddy Cove Sediment Sample Letter.docx



	BORING LOCATIONS (FEET)					
BORING	NORTHING	EASTING	STATION	OFFSET	SURFACE EL.	BOTTOM ELEVATION
BB-1	2,755,896.23	759,845.97	69+80	7' LT	7.4	-47.5 ROCK CORE
BB-2	2,755,879.09	759,859.14	69+65	8' RT	7.4	-21.2' (28.6' DEPTH)
BB-3	2,755,811.05	759,850.93	68+96	9' RT	7.6	-27.3 ROCK CORE
BB-4	2,755,835.09	759,821.04	69+16	24' LT	7.3	-22.3 (29.6' DEPTH)

LEGEND:

BORING, GEI 2022

SEDIMENT SAMPLE, GEI 2022

SUBSURFACE PROFILE LOCATION, SEE FIG. 3

NOTES:

1. ELEVATIONS ARE IN US SURVEY FEET, REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

SOURCE:

1. PLAN BASED ON EXISTING CONDITIONS BASE PLAN PROVIDED BY BAYSIDE ENGINEERING ON FEBRUARY 12, 20212.

0 30 60

SCALE: 1" = 30'

Pleasant Street Over Muddy Cove
Bridge No. D-08-002 (3L9)
Dighton, MA

BETA Group, Inc.
Norwood, Massachusetts

GEI Consultants

Project 2200710

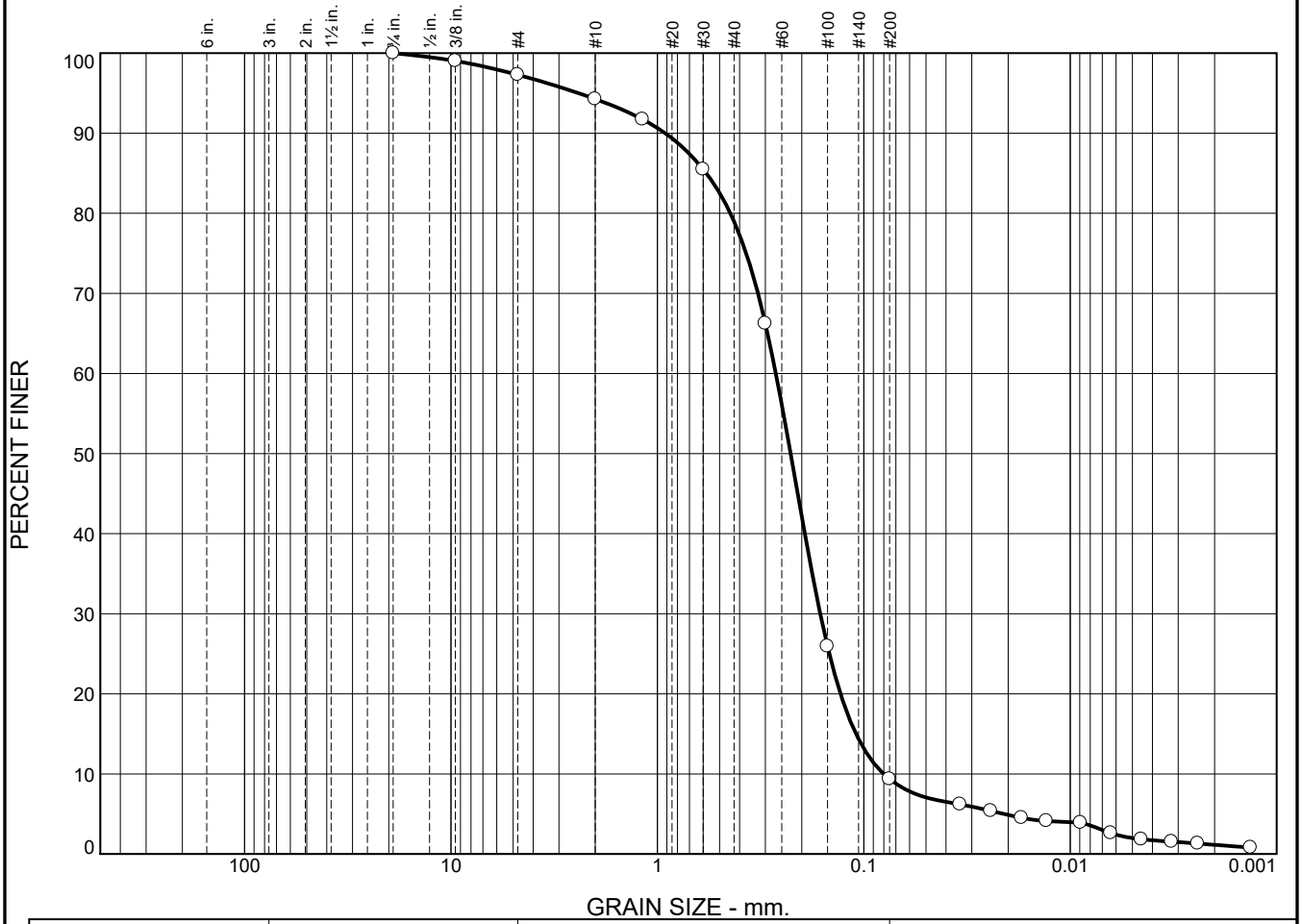
BORING LOCATION PLAN

June 2022 Fig. 1

Attachment A

GEI Particle Size Distribution Reports (4 pages)

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	2.7	3.0	15.3	69.6	7.4	2.0

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
○	-	-	0.5799	0.2670	0.2264	0.1626	0.1092	0.0801	1.24	3.33

Material Description	USCS	AASHTO
○ FINE TO COARSE SAND, trace organic silt, trace fine to medium gravel	SP-SM	A-3

Project No. 2200710 **Client:** BETA Group

Project: Pleasant Street over Muddy Cove

○ **Source of Sample:** - **Depth:** - **Sample Number:** SS-1

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

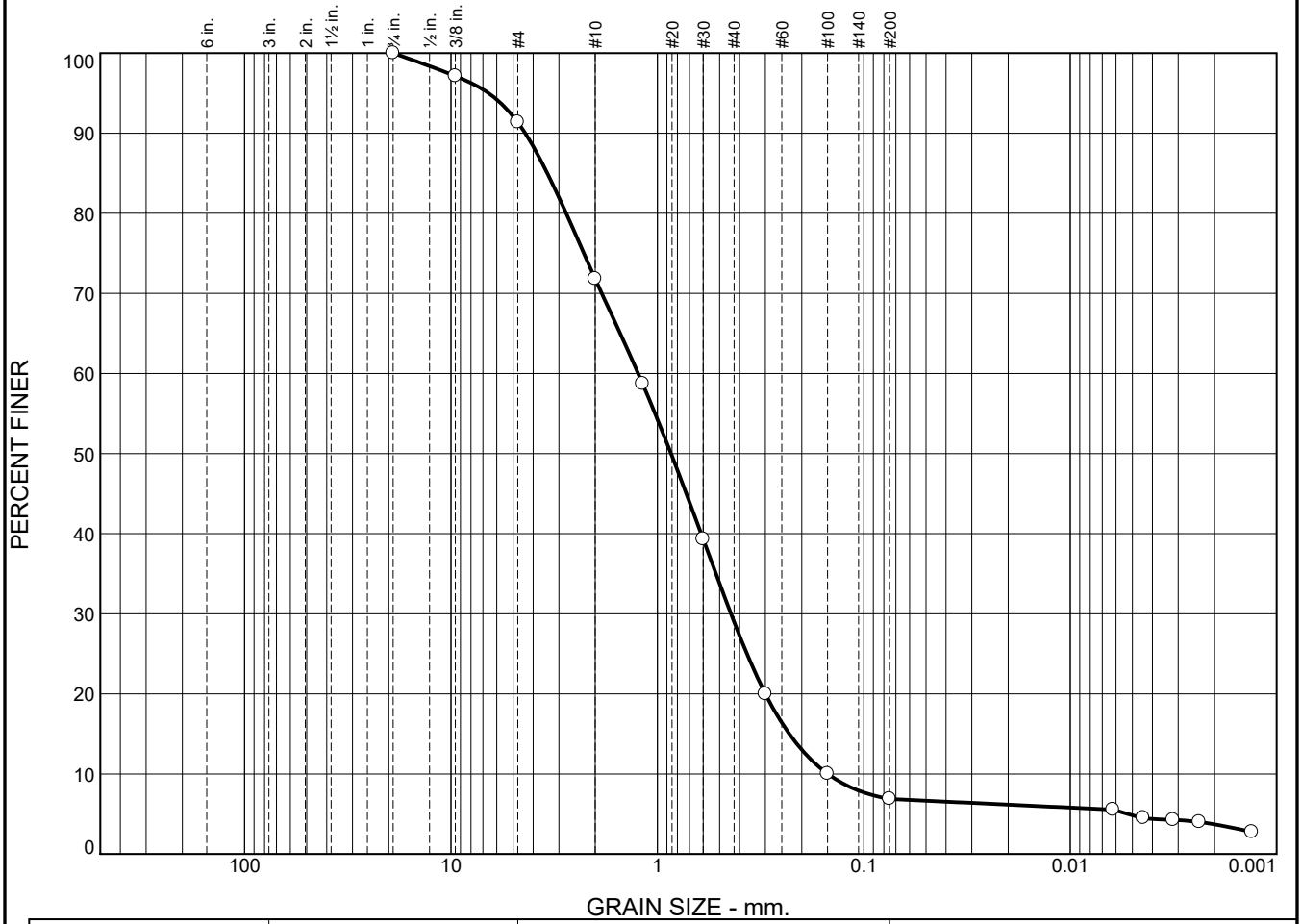
Remarks:

○As Received WC = 26.1%
Material description per MassDOT standard.

Figure

Tested By: EF **Checked By:** W. Lukas

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	8.6	19.6	42.8	22.1	2.1	4.8

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
○	-	-	3.4113	1.2395	0.8595	0.4403	0.2298	0.1493	1.05	8.30

Material Description	USCS	AASHTO
○ FINE TO COARSE SAND, some fine gravel, trace organic silt	SW-SM	A-1-b

Project No. 2200710 **Client:** BETA Group

Project: Pleasant Street over Muddy Cove

○ **Source of Sample:** - **Depth:** - **Sample Number:** SS-2

Remarks:

○As Received WC = 58.4%

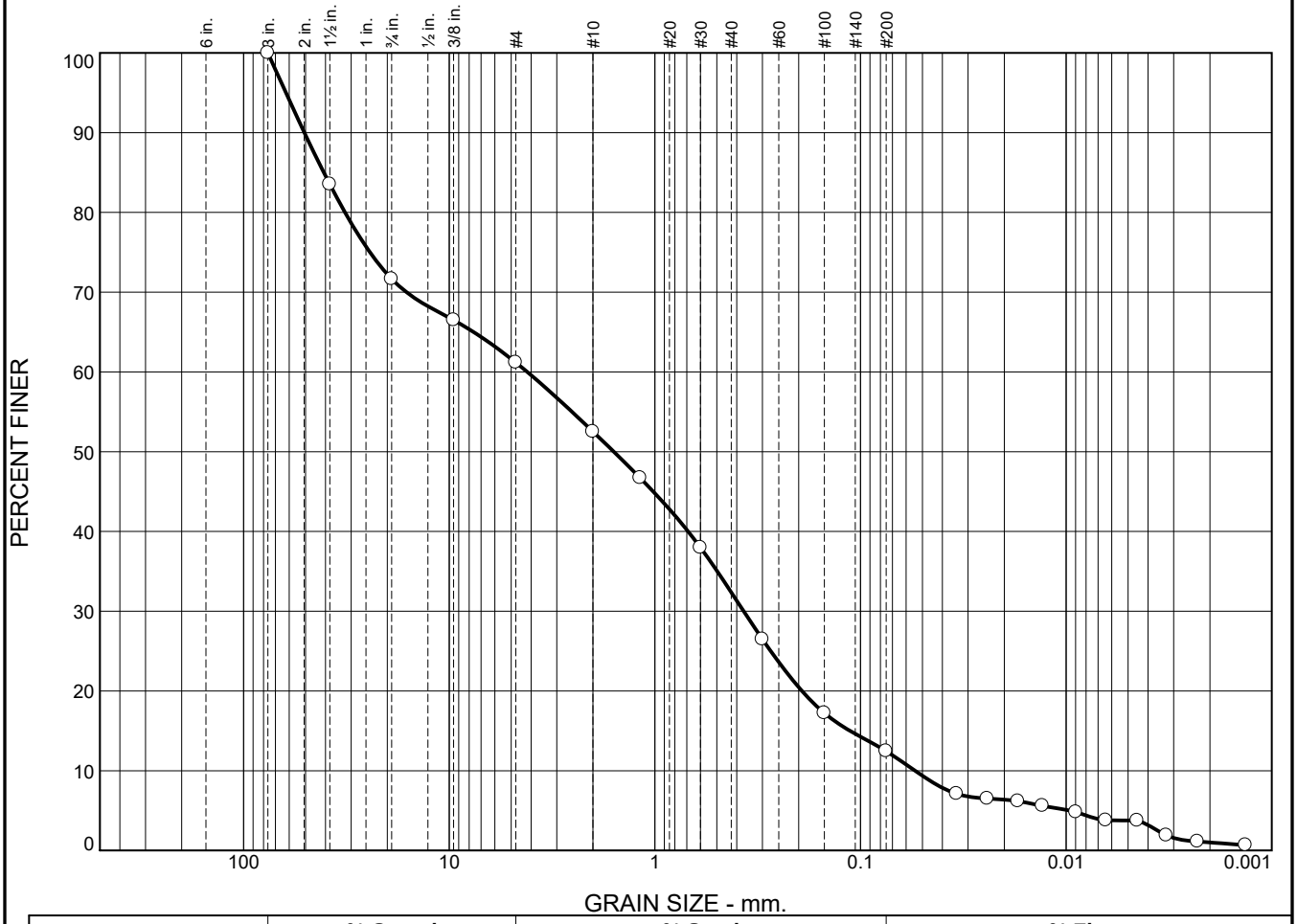
Material description per MassDOT standard.

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

Figure

Tested By: EF **Checked By:** W. Lukas

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	28.3	10.5	8.7	20.1	20.0	8.6	3.8

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	-	-	40.7408	4.1721	1.5848	0.3700	0.1124	0.0543	0.60	76.80

Material Description	USCS	AASHTO
○ FINE TO COARSE GRAVEL AND FINE TO COARSE SAND, some organic silt	SM	A-1-b

Project No. 2200710 **Client:** BETA Group

Project: Pleasant Street over Muddy Cove

○ **Source of Sample:** - **Depth:** - **Sample Number:** SS-3

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

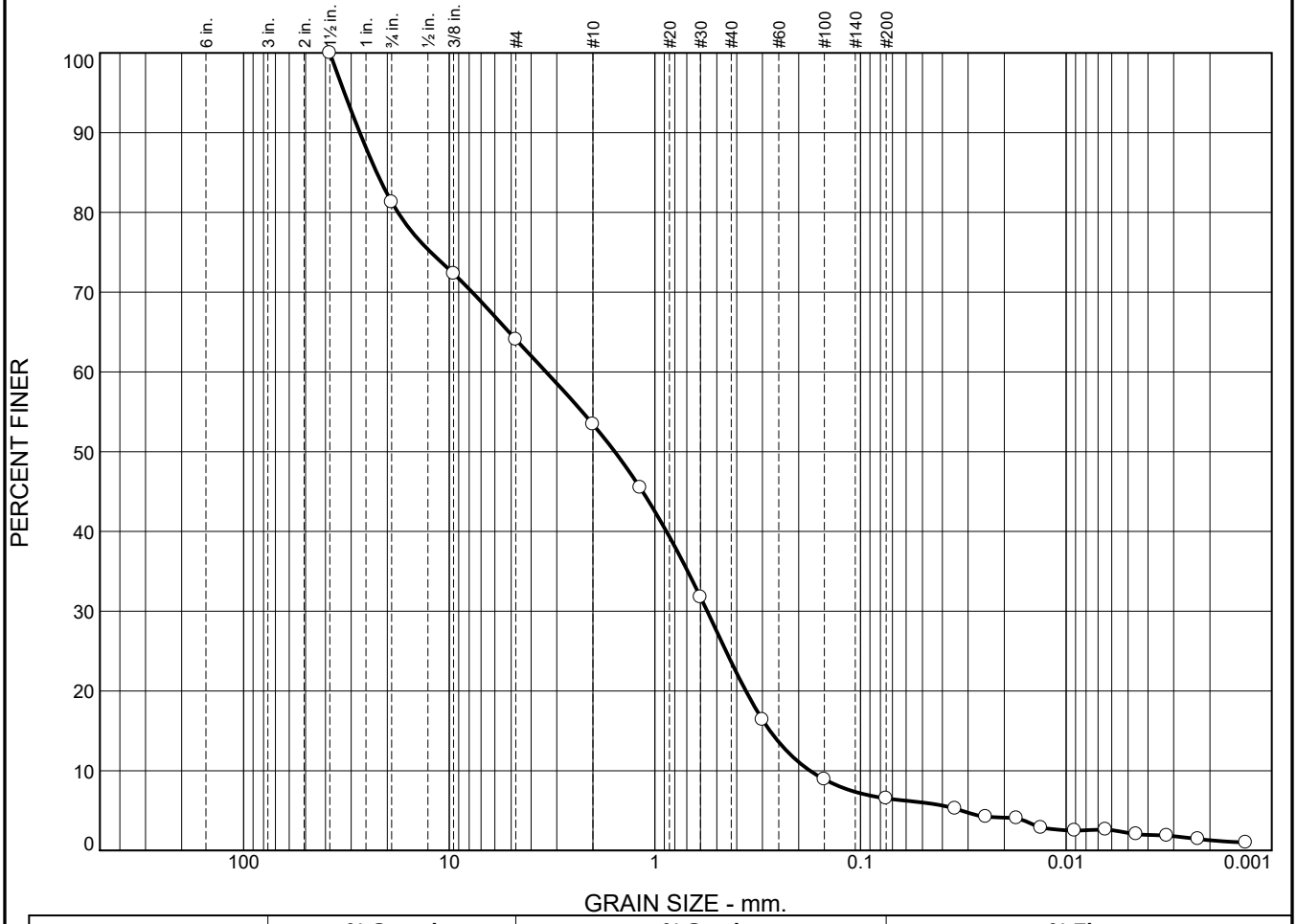
Remarks:

○As Received WC = 10.6%
Material description per MassDOT standard.

Figure

Tested By: EF **Checked By:** W. Lukas

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	18.7	17.2	10.7	29.8	17.1	4.3	2.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	NV	NP	22.5251	3.3807	1.5667	0.5564	0.2755	0.1760	0.52	19.20

Material Description	USCS	AASHTO
○ FINE TO COARSE SAND AND FINE TO COARSE GRAVEL, trace organic silt	SP-SM	A-1-b

Project No. 2200710 **Client:** BETA Group

Project: Pleasant Street over Muddy Cove

○ **Source of Sample:** - **Depth:** - **Sample Number:** SS-4

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

Remarks:

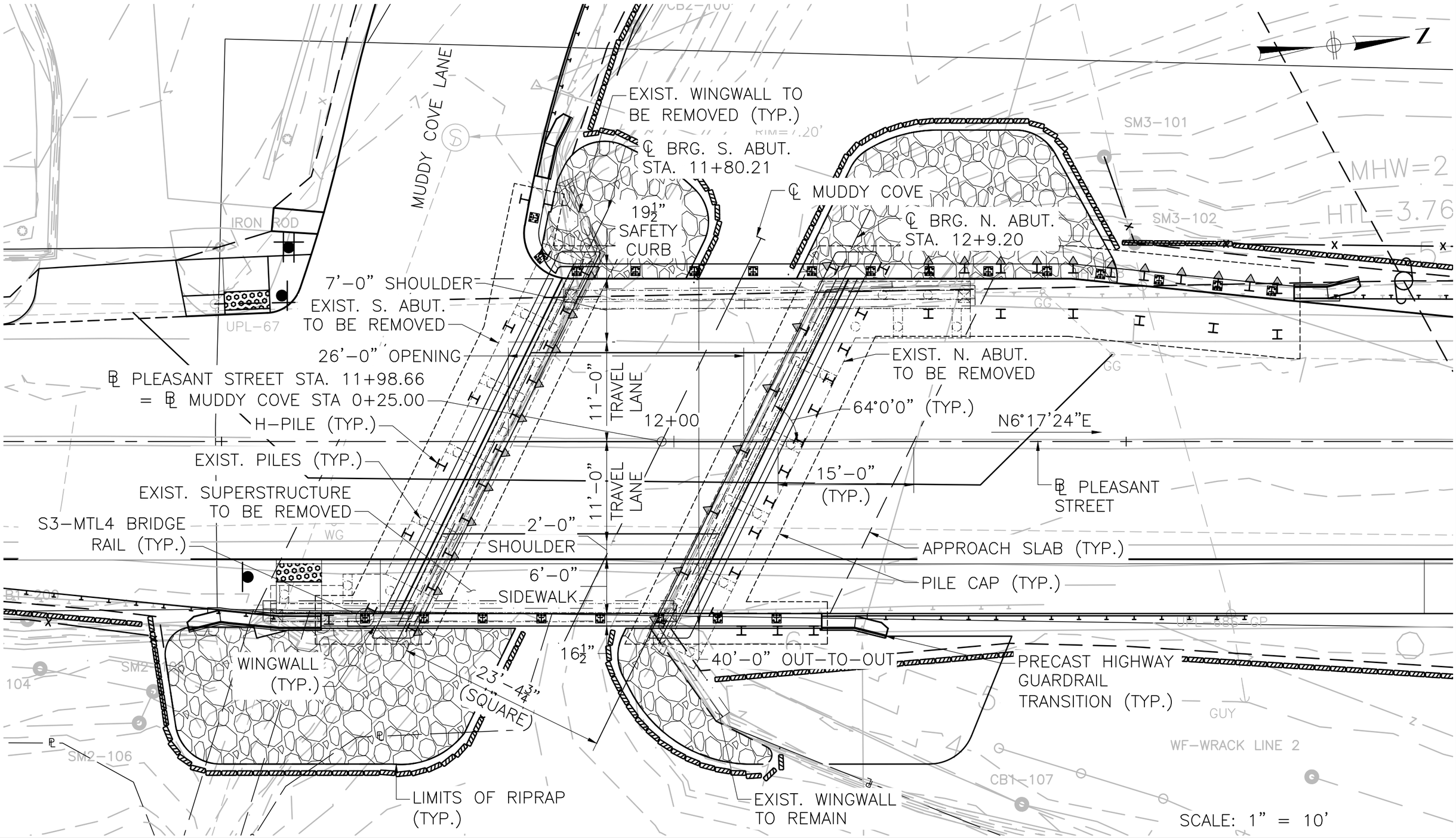
○As Received WC = 40.4%
Material description per MassDOT standard.

Figure

Tested By: EF **Checked By:** W. Lukas

APPENDIX G

BRIDGE PLANS



Prepared by:

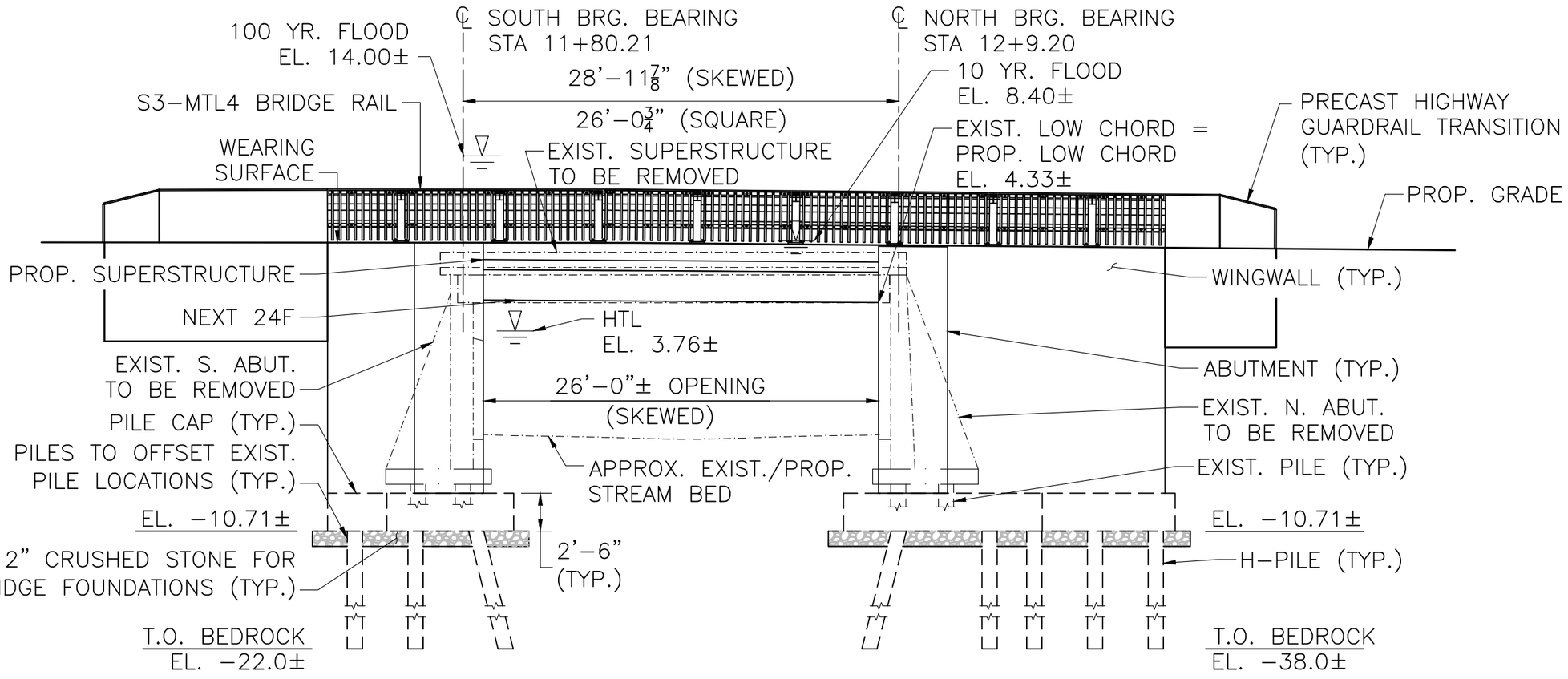
BETA
www.BETA-Inc.com

DIGHTON - PLEASANT STREET OVER MUDDY COVE

Bridge No. D-08-002

Sketch No. 1 of 14

Option 6.1.A
NEXT 24F
GENERAL PLAN



SCALE: ⅛" = 1'–0"

Prepared by:

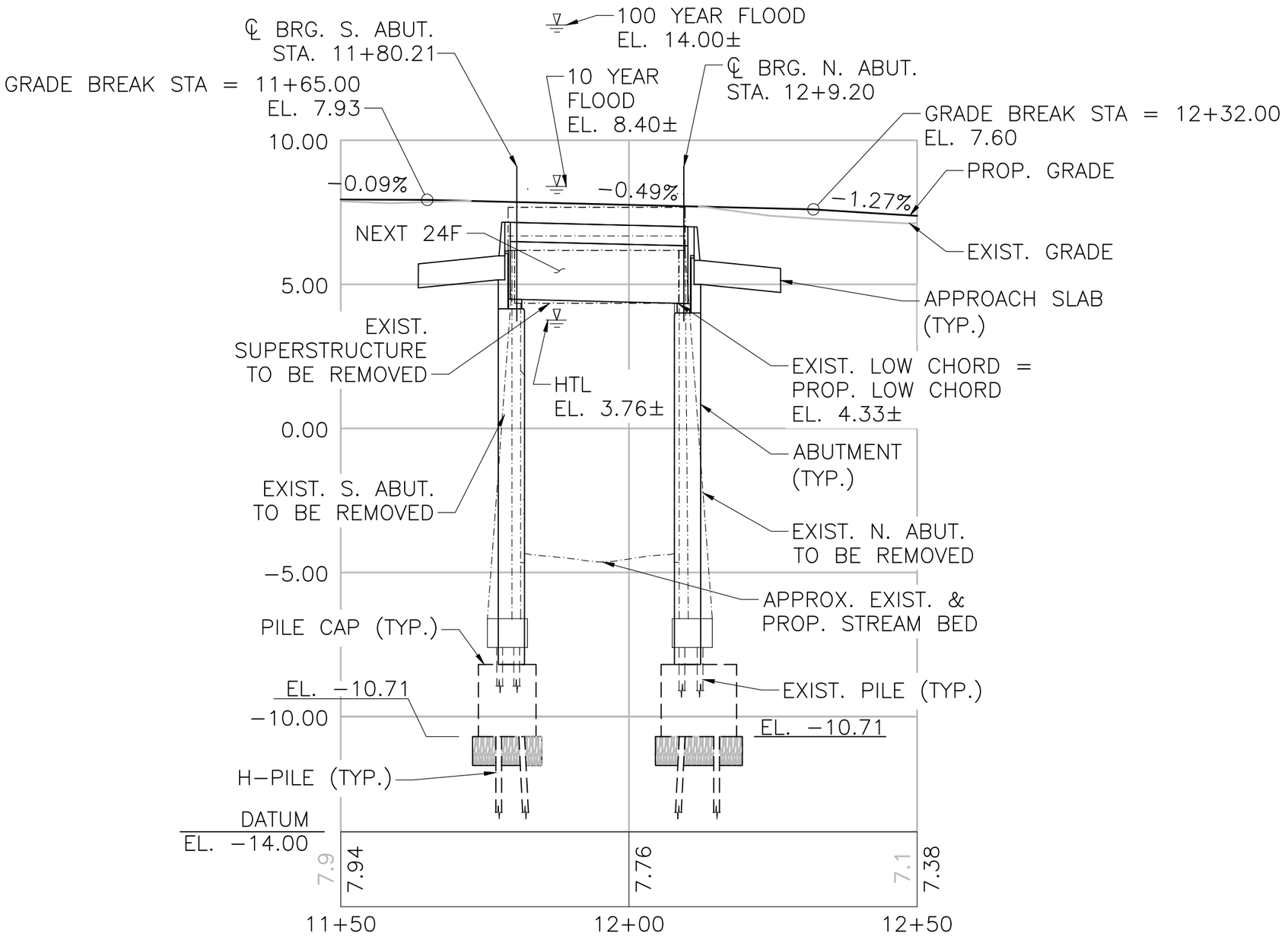
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DIGHTON - PLEASANT STREET OVER MUDDY COVE

Bridge No. D-08-002

Sketch No. 2 of 14

Option 6.1.A
NEXT 24F
GENERAL ELEVATION



Prepared by:

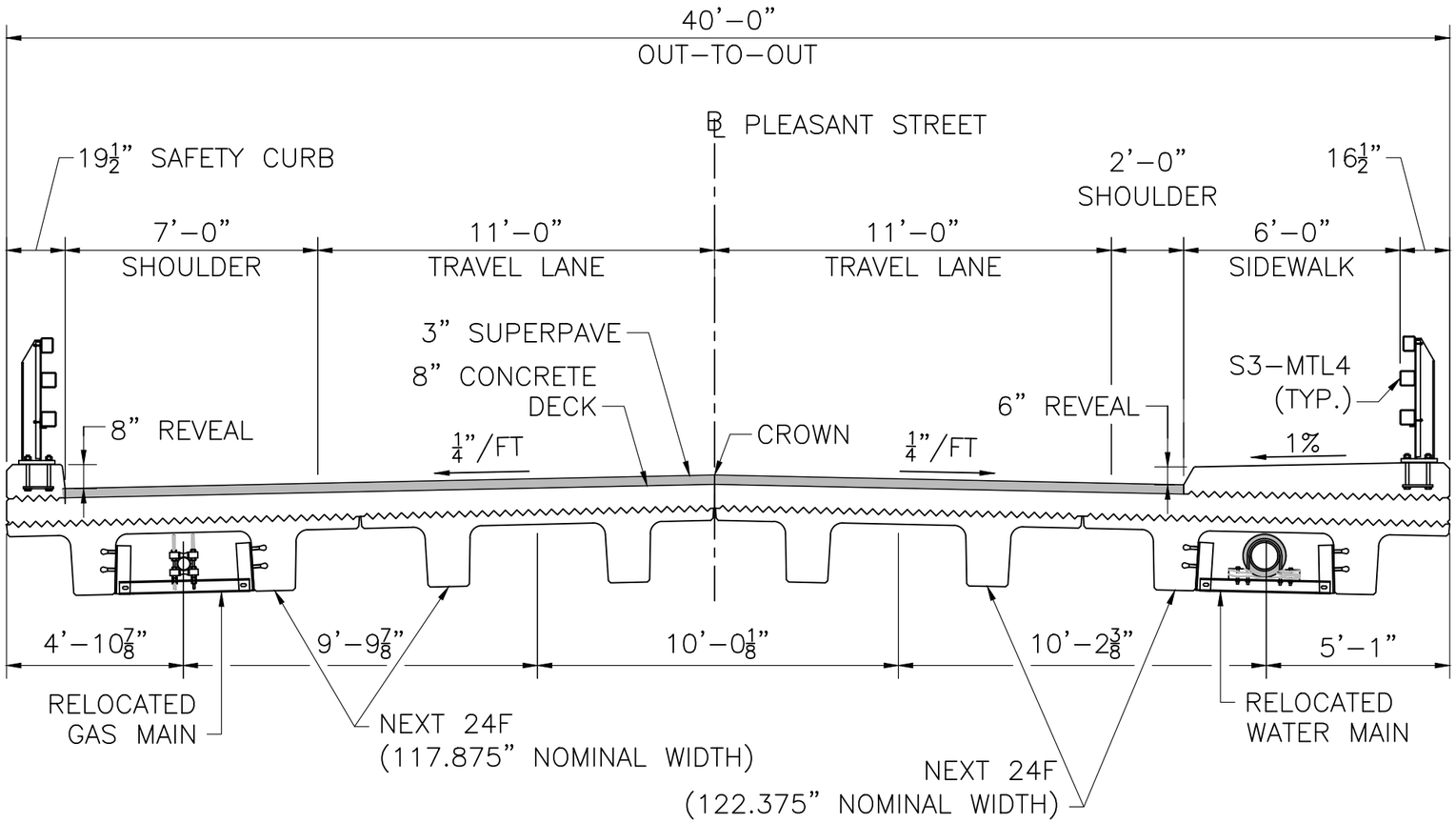
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DIGHTON - PLEASANT STREET OVER MUDDY COVE

Bridge No. D-08-002

Sketch No. 3 of 14

Option 6.1.A
NEXT 24F
PROFILE



SCALE: ¼" = 1'–0"

Prepared by:

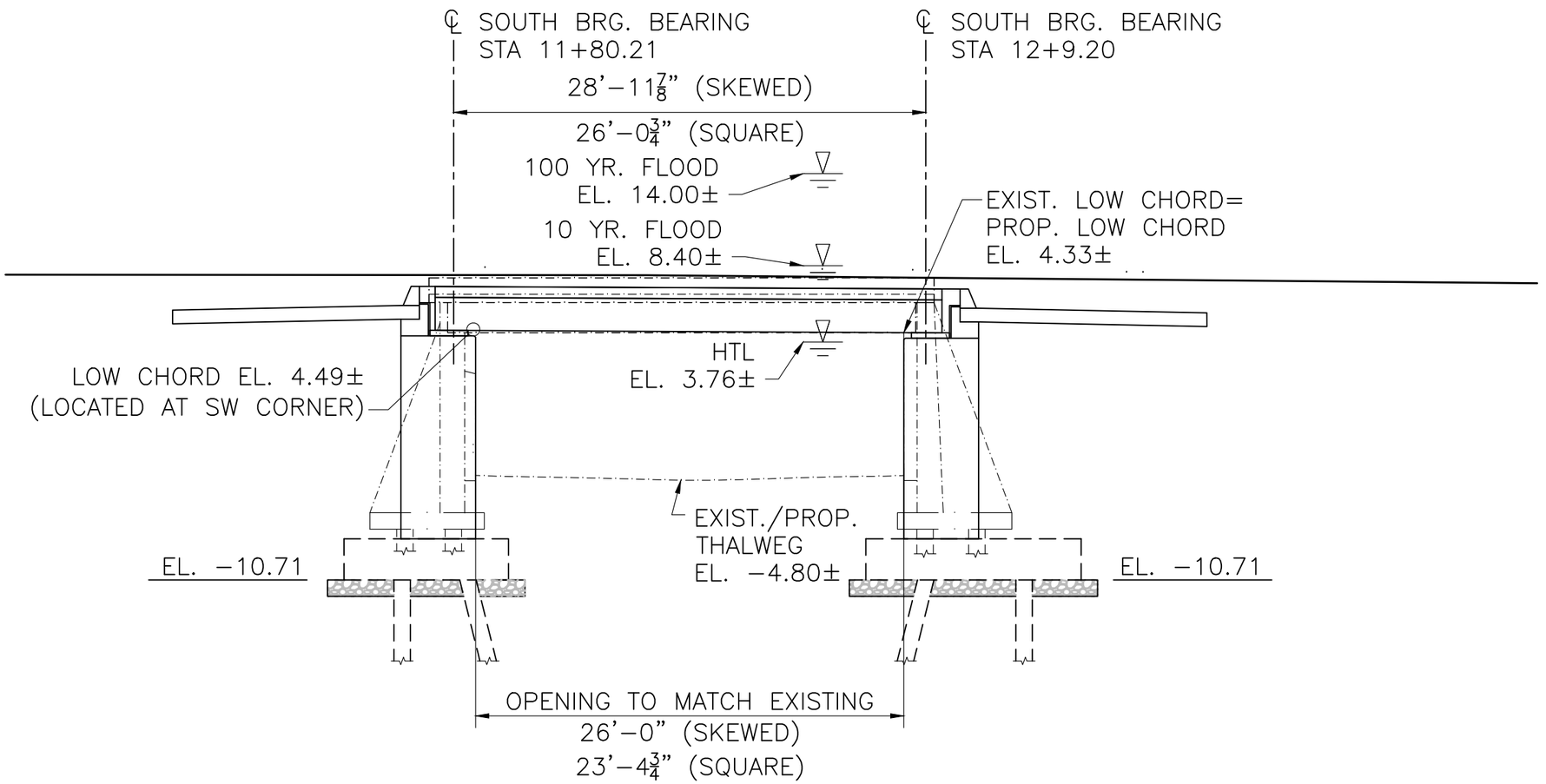
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DIGHTON - PLEASANT STREET OVER MUDDY COVE

Bridge No. D-08-002

Sketch No. 4 of 14

Option 6.1.A
NEXT 24F
CROSS SECTION



SCALE: ⅛" = 1'–0"

Prepared by:

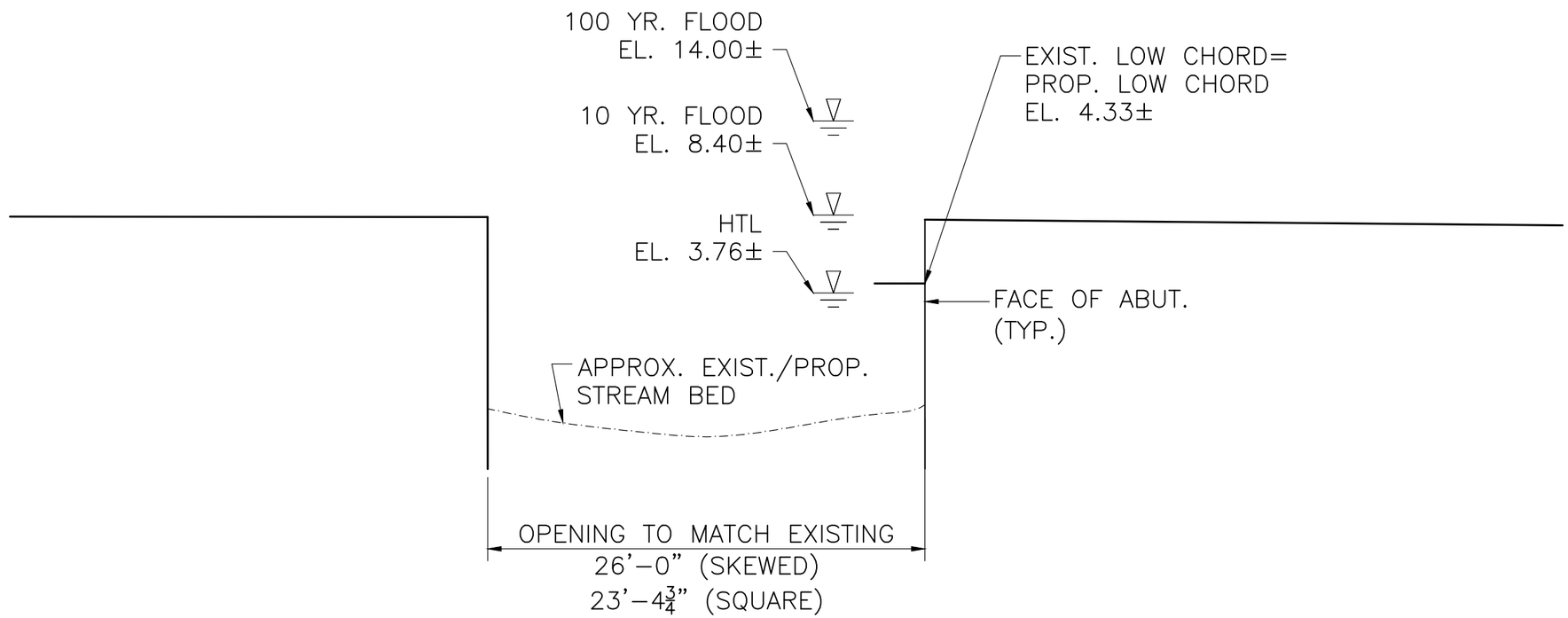
BETA
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DIGHTON - PLEASANT STREET OVER MUDDY COVE

Bridge No. D-08-002

Sketch No. 5 of 14

Option 6.1.A
NEXT 24F
CLEARANCE DIAGRAM



SCALE: $\frac{1}{8}$" = 1'–0"

Prepared by: BETA www.BETA-Inc.com

DIGHTON - PLEASANT STREET OVER MUDDY COVE

Bridge No. D-08-002

Sketch No. 6 of 14

Option 6.1.A
NEXT 24F
CHANNEL CROSS SECTION

APPENDIX J

- **Stormwater Checklist and Report**

Stormwater Management Report

Pleasant Street Bridge (D-08-002) Replacement

Dighton, MA

PREPARED FOR

Town of Dighton
Highway Department
2011 County Street
Dighton, MA 02715

PREPARED BY

BETA Group, Inc.
701 George Washington Highway
Lincoln, Rhode Island 02865

10/24/2025
Revised 01/08/2026

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1 **Introduction** 1

2 **Project Summary** 2

3 **Existing Conditions** 4

4 **Proposed Conditions** 6

5 **Impaired Waters and TMDLs** 7

6 **Stormwater Management Standards** 8

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Figure 2	Existing Key Features and Wetland Resource Areas	5

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Table 1	Impervious Area	6
Table 2	Impaired Waters and TMDL Information	7

Attachments

Appendix A: MassDEP Checklist for Stormwater Report

Appendix B: Soils and FEMA Information

Appendix C: SCM Constraints Plan

1

Introduction

This Stormwater Management Report has been prepared to demonstrate compliance with the Massachusetts Stormwater Management Standards (the Standards) in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and Water Quality Certification Regulations (314 CMR 9.00). Appendix A includes a completed Massachusetts Department of Environmental Protection (MassDEP) Checklist for Stormwater Report, stamped by a Massachusetts registered professional engineer.

The Project follows the guidance presented in the MassDOT Stormwater Design Guide (SDG), and stormwater management systems are designed in accordance with the Standards.

2

Project Summary

The Applicant, the Town of Dighton, is proposing Project *613636* for the replacement of the Pleasant Street Bridge (Bridge D-08-002) over Muddy Cove Brook which includes work along the adjacent roadway (the Project) located in Dighton, MA.

As proposed, the Project consists of bridge replacement, full depth pavement construction in the vicinity of the bridge and pavement milling and overlay to the north and south of the bridge.

The project area is an approximately 0.05-mile-long section of a roadway which is identified as Pleasant Street that crosses over the Muddy Cove and the work includes temporary and permanent work within the waterbody's footprint. The project also includes portions of Muddy Cove Lane, an intersecting side street.

Land use on surrounding lots includes single family residential properties, woodlands and open space.

Wetland resource areas are located in proximity to the project area, notably including the Muddy Cove Brook and the Taunton River. The project is not considered a Land Use with Higher Potential Pollutant Loads (LUHPPL) and the project is not located within or near to a Zone II or Interim Wellhead Protection Area, any other critical areas, or a NHESP-mapped habitat.

See Figure 1 for the Project Locus Map.

Figure 1 Locus Figure



3

Existing Conditions

Pleasant Street Bridge No. D-08-002 carries Pleasant Street over Muddy Cove Brook in Dighton, MA. The existing Pleasant Street Bridge is a single span bridge with a 27'-6" clear span on a north-south alignment. The bridge was constructed in 1914 and renovated in 1949. This segment of Pleasant Street is classified as an Urban Local Roadway. The roadway varies in width from 24 to 26 feet with grass shoulders along either travel lane.

The project corridor consists of the impervious roadway surface of Pleasant Street and Muddy Cove Lane, impervious concrete parapet barriers on either side of the bridge and the pervious grass shoulders adjacent to the roadway. There are no existing stormwater control measures within the project area. Stormwater sheet flows from the roadway to the grass shoulders, that slope gradually to Muddy Cove Brook and the Taunton River.

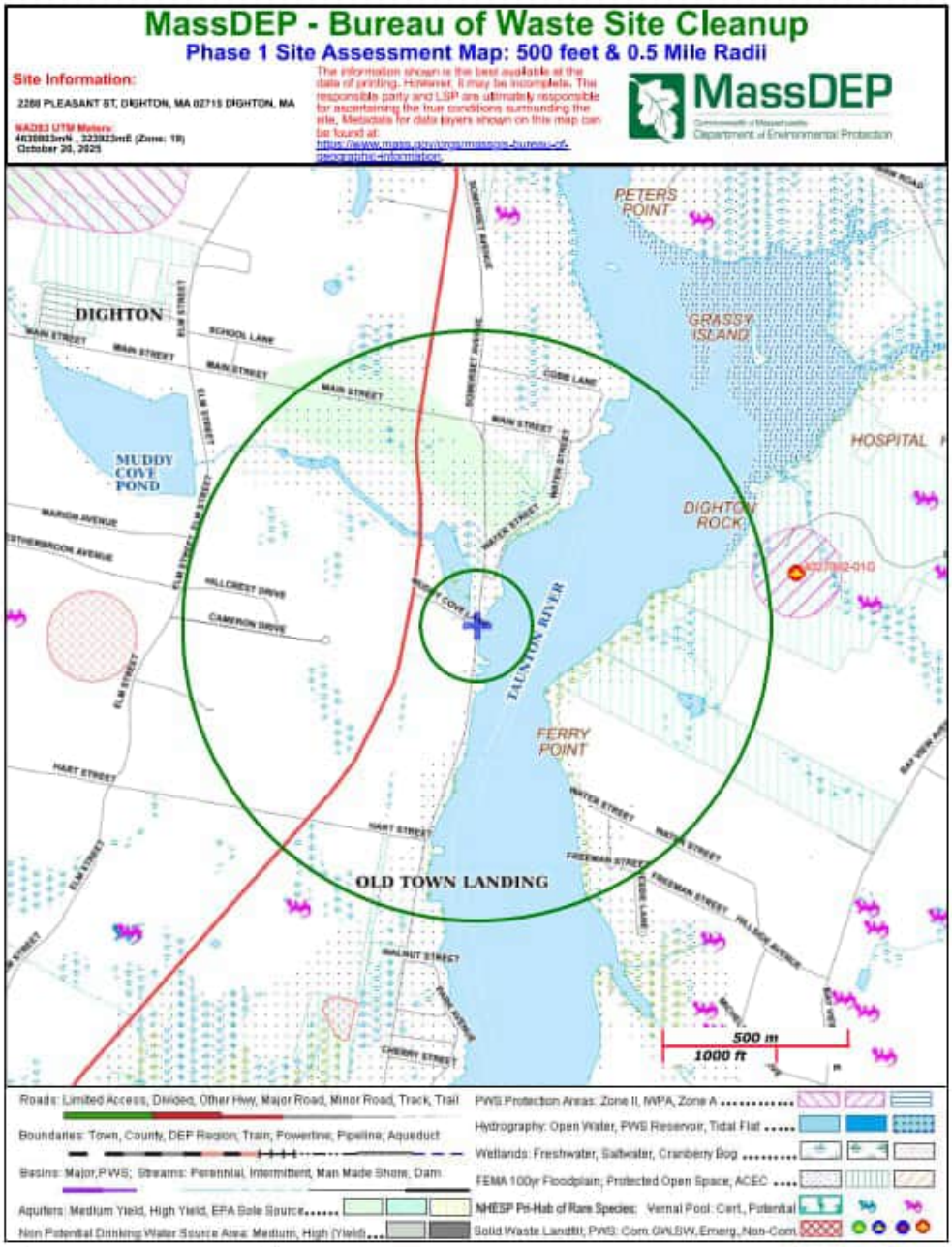
The wetland resource areas identified at the Site are Subject to Jurisdiction under the Dighton Wetlands Bylaw (the Bylaw) and the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131 Section 40 - the Act) as well as the Federal Clean Water Act (33 U.S.C. &1251 et seq (1972) - CWA) and the Massachusetts Clean Waters Act (MGL Chapter 21 Section 26-53 - MCWA).

Resource Areas subject to jurisdiction under the Act and the Bylaw include Land Subject to Coastal Storm Flowage, Land Subject to Tidal Action, Land Under the Ocean, Coastal Bank, Salt Marsh, and Land Containing Shellfish. Refer to Notice of Intent narrative for a thorough description of these areas and a summary of project compliance with these regulations. Resource areas subject to jurisdiction under the CWA and MCWA include the Salt Marsh and Waters of the U.S./Waters of the US within the Commonwealth. Refer to the joint Section 401/404 application narrative for a thorough description of these areas. Impacts to these areas will be minimized, to the extent possible.

Key features in and around the project area include *Muddy Cove Brook and the Taunton River* and are shown on Figure 2.

The Pleasant Street Bridge is located within the National Flood Insurance Program (NFIP) Special Flood Hazard Area (SFHA) Zone AE delineation determined for Taunton River by the Flood Insurance Rate Map (FIRM) No. 25005C0261G dated July 6, 2014. The base flood elevation determined for Zone AE within the project limits is 14 feet. Refer to Appendix B for the FIRM.

Figure 2 Existing Key Features and Wetland Resource Areas



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Proposed Conditions

The proposed work consists of bridge replacement, full depth pavement construction in the vicinity of the bridge and pavement milling and overlay to the north and south of the bridge, striping of the two travel lanes, construction of a sidewalk and ADA compliant ramps. There will be an increase of approximately 1,050 square feet of impervious area. There is no proposed drainage in the project, all existing drainage patterns will remain, stormwater will sheet off the roadway to the grassed shoulders sloping to Muddy Cove Brook and the Taunton River.

Table 1 provides a breakdown of the impervious area for the Project.

Table 1 Impervious Area

Condition	Impervious Area (sq. ft)
Existing	*9,170*
Proposed	*10,220*
Net	*1,050*

This project includes a minor net increase in impervious surface (1,050± sq. ft.) and will not have a significant impact to the volume and rate of stormwater runoff from the project area. The project is limited by right-of-way constraints, wetland resource areas, areas of steep topography, the presence of and the anticipation of soils with poor infiltrative capacity. As such, opportunities to attenuate peak discharge rates and runoff volume are limited. No adverse impacts to the surrounding area and there is no closed drainage system in the project area. Appendix C contains the SCM Constraints Plan, which outlines the limitations associated with installing an SCM within the project area.

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Impaired Waters and TMDLs

As described under the previous sections, the Project will discharge to the Taunton River (MA 62-03), which is impaired based on the MassDEP Year 2023 Integrated List of Waters, also known as the 303(d) list.

MassDOT is expecting to receive a Transportation Separate Storm Sewer System (TS4) Permit from EPA, which will require that pollutant reductions presented in the TMDL be met on the watershed scale. As a result, the TMDL reductions do not need to be met by MassDOT on a project-by-project basis, but rather, MassDOT strives to make incremental progress towards achieving the required TMDL pollutant reductions with each project. Incremental progress is achieved through the implementation of SCMs designed to treat for the specific pollutants of concern for waterbodies within the watershed.

Table 2 Impaired Waters and TMDL Information

Water Body	303(d) Category	303(d) Impairments	TMDL	TMDL Pollutant	TMDL Report Name
Muddy Cove Brook	4c	Fish Passage Barrier	No	N/A	N/A
Taunton River (MA 62-03	5	Dissolved Oxygen, Enterococcus, Fecal Coliform	Yes	Pathogens (Fecal Coliform, E. Coli, Enteroccous)	Final Pathogen TMDL for the Taunton River Watershed

The project is a redevelopment with a minor increase to the impervious area proposed. There are several constraints that severely limit the opportunity for stormwater improvements. Soils in the project area are mapped in Hydrologic Soil Group A, but due to high ground water elevations and close proximity of wetland resource areas, infiltration is not possible. As noted in the Stormwater Management Standards, infiltration practices must be located a minimum of 50 feet from surface waters, there are no such locations in project area where treatment would be able to be provided.

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Stormwater Management Standards

As demonstrated below, the proposed Project complies with the MassDEP Stormwater Management Standards (the Standards). The Project is classified as a limited, redevelopment under the first definition "Maintenance and improvement of existing roadways, including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems and repaving." Work related to the maintenance, repair, and improvement of the bridge is considered a Limited Project.

Standard 1: No New Untreated Discharges

No new stormwater conveyances may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

There are no existing outfalls and no new discharges to Wetland Resource Areas are proposed as part of the project and existing drainage patterns will be maintained – complies with Standard.

Standard 2: Peak Rate Attenuation

Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

This project includes a minor net increase in impervious surface (1,050± sq. ft.) and will not have a significant impact to the volume and rate of stormwater runoff from the project area. The project is limited by right-of-way constraints, wetland resource areas, areas of steep topography and the anticipation of soils with high ground water. As such, opportunities to attenuate peak discharge rates and runoff volume are limited. No adverse impacts to the surrounding area – project complies to the maximum extent practicable.

Standard 3: Recharge

Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures, including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the

required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

As noted in Standard 2, there are only minor increases to impervious area proposed as part of the project and there are several constraints that severely limit the opportunity for additional stormwater improvements. Soils in the project area are mapped in Hydrologic Soil Group A, but due to high water elevations and close to proximity of wetland resource areas, infiltration is not possible. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, there are no such locations in the project area where treatment would be able to be provided – project complies to the maximum extent practicable.

Standard 4: Water Quality Treatment

Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

- *Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained.*
- *Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook.*
- *Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*

As noted in Standard 2, there are only minor increases to impervious area proposed as part of the project and there are several constraints that severely limit the opportunity for additional stormwater improvements. Soils in the project area are mapped in Hydrologic Soil Group A, but due to high water elevations and close to proximity of wetland resource areas, infiltration is not possible. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, there are no such locations in the project area where treatment would be able to be provided – project complies to the maximum extent practicable.

Standard 5: Land Uses with Higher Potential Pollutant Loads

For Land Uses with Higher Potential Pollutant Loads (LUHPPLs), source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all LHPPLs cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from LUHPPLs shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

Standard 5 does not apply to the Project. There are no Land Uses with Higher Potential Pollutant Loads within the project area.

Standard 6: Critical Areas

Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical area require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "stormwater discharge" as defined in 314 CMR 3.04(2)(a)1 or (b), to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

Standard 6 does not apply to the Project. There are no Critical Areas near the project area.

Standard 7: Redevelopment

A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

The project is classified as a redevelopment under the first definition "Maintenance and improvement of existing roadways, including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems and repaving." Standards 1, 8, 9, and 10 are met and Standards 2, 3, and 4 are met to the maximum extent practicable. Standards 5 and 6 are not applicable to this project.

Standard 8: Erosion and Sediment Control

A plan to control construction related impacts, including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

The Project will provide erosion and sedimentation controls as shown on the Project Plans, which will be maintained in good working order until stabilization at the Site is achieved. Erosion and sedimentation control measures are also summnarized in the attached Notice of Intents – complies with Standard.

Standard 9: Operation and Maintenance Plan

A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.

There is no drainage infrastructure within the project limits, stormwater sheet flows to Muddy Cove and the Taunton River. These drainage patterns will be maintained in accordance with standard operations of the Department of Public Works – complies with Standard.

Standard 10: Prohibition of Illicit Discharges

All illicit discharges to the stormwater management system are prohibited.

There are currently no known illicit discharges within the project limits and new illicit discharges are prohibited – complies with Standard.

Appendix A: MassDEP Checklist for Stormwater Report

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
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Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



1/8/2026
Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☒ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☐ Use of “country drainage” versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☐ Soil Analysis provided.

☐ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☐ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

- ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
- ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
- ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
- ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☐ The BMP is sized (and calculations provided) based on:

- ☐ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Massachusetts Department of Environmental Protection
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Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☒ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☒ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☐ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☒ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☐ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☐ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☐ Name of the stormwater management system owners;
- ☐ Party responsible for operation and maintenance;
- ☐ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Appendix B: Soils and FEMA Information

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Bristol County, Massachusetts, Northern Part



October 22, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

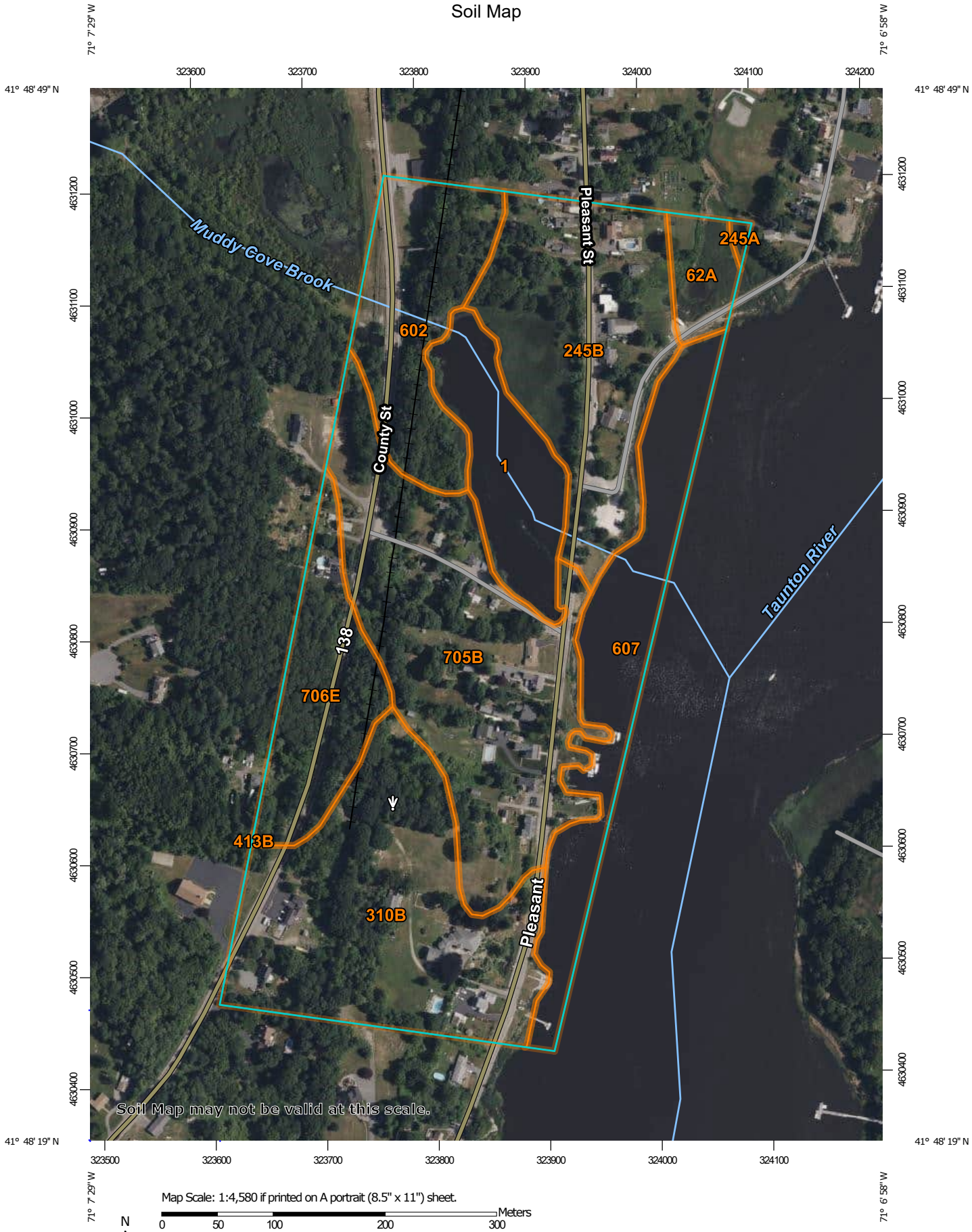
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bristol County, Massachusetts, Northern Part
Survey Area Data: Version 18, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	4.3	7.2%
62A	Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	1.5	2.5%
245A	Hinckley loamy sand, 0 to 3 percent slopes	0.1	0.2%
245B	Hinckley loamy sand, 3 to 8 percent slopes	9.9	16.6%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	12.6	21.2%
413B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very stony	0.0	0.0%
602	Urban land	5.8	9.8%
607	Water, saline	6.9	11.6%
705B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky	13.6	22.9%
706E	Charlton-Rock outcrop-Paxton complex, 15 to 35 percent slopes	4.8	8.1%
Totals for Area of Interest		**59.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a

particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Bristol County, Massachusetts, Northern Part

1—Water

Map Unit Setting

National map unit symbol: 997q
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

62A—Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded

Map Unit Setting

National map unit symbol: 2tyqf
Elevation: 0 to 10 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Westbrook and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Westbrook

Setting

Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Partly-decomposed herbaceous organic material over loamy mineral material

Typical profile

Oe - 0 to 19 inches: mucky peat
Cg - 19 to 59 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.17 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent

Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to strongly saline (0.7 to 111.6 mmhos/cm)
Sodium adsorption ratio, maximum: 33.0
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8w
Hydrologic Soil Group: B/D
Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded
Hydric soil rating: Yes

Minor Components

Ipswich

Percent of map unit: 5 percent
Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded
Hydric soil rating: Yes

Pawcatuck

Percent of map unit: 5 percent
Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded
Hydric soil rating: Yes

245A—Hinckley loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svm7
Elevation: 0 to 1,420 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, kame terraces, outwash plains, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 5 percent
Landform: Outwash deltas, kame terraces, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent
Landform: Outwash deltas, kame terraces, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 4 percent
Landform: Outwash deltas, kame terraces, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Walpole

Percent of map unit: 1 percent
Landform: Deltas, depressions, depressions, outwash plains, outwash terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

245B—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8
Elevation: 0 to 1,430 feet
Mean annual precipitation: 36 to 53 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, moraines, kames, kame terraces, outwash plains, eskers, outwash terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent
Landform: Outwash deltas, moraines, kames, kame terraces, outwash plains, eskers, outwash terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Outwash deltas, moraines, kame terraces, outwash plains, outwash terraces
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope, head slope, tread
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Agawam

Percent of map unit: 2 percent
Landform: Outwash deltas, moraines, kames, kame terraces, outwash plains, eskers, outwash terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

310B—Woodbridge fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t2ql
Elevation: 0 to 1,470 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Woodbridge, fine sandy loam, and similar soils: 82 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woodbridge, Fine Sandy Loam

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw1 - 7 to 18 inches: fine sandy loam
Bw2 - 18 to 30 inches: fine sandy loam
Cd - 30 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: F144AY037MA - Moist Dense Till Uplands

Hydric soil rating: No

Minor Components

Paxton

Percent of map unit: 10 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Ridgebury

Percent of map unit: 8 percent
Landform: Hills, ground moraines, depressions, drainageways
Landform position (two-dimensional): Toeslope, backslope, footslope
Landform position (three-dimensional): Base slope, head slope, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

413B—Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2w69z
Elevation: 0 to 280 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Charlton, very stony, and similar soils: 45 percent
Paxton, very stony, and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Paxton, Very Stony

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Woodbridge, very stony

Percent of map unit: 9 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Montauk, very stony

Percent of map unit: 6 percent
Landform: Recessionial moraines, hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Ridgebury, very stony

Percent of map unit: 5 percent
Landform: Hills, ground moraines, depressions, drainageways, drumlins
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

602—Urban land

Map Unit Setting

National map unit symbol: 9999
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

607—Water, saline

Map Unit Setting

National map unit symbol: tgbv
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water, saline: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Westbrook

Percent of map unit: 5 percent
Landform: Marshes
Hydric soil rating: Yes

705B—Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2w6b2
Elevation: 0 to 290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, very stony, and similar soils: 50 percent
Paxton, very stony, and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Paxton, Very Stony

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Woodbridge, very stony

Percent of map unit: 9 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 4 percent
Landform: Hills, ridges
Hydric soil rating: No

Ridgebury, very stony

Percent of map unit: 4 percent
Landform: Hills, ground moraines, depressions, drainageways, drumlins
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Gloucester, very stony

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

706E—Charlton-Rock outcrop-Paxton complex, 15 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2x1k4
Elevation: 0 to 390 feet
Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, extremely stony, and similar soils: 35 percent
Rock outcrop: 25 percent
Paxton, extremely stony, and similar soils: 20 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Extremely Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hills, ridges
Parent material: Igneous and metamorphic rock

Typical profile

R - 0 to 79 inches: bedrock

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Paxton, Extremely Stony

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Montauk, extremely stony

Percent of map unit: 6 percent

Landform: Recessionial moraines, hills, ground moraines, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Gloucester, extremely stony

Percent of map unit: 6 percent
Landform: Ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Woodbridge, extremely stony

Percent of map unit: 5 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Ridgebury, extremely stony

Percent of map unit: 3 percent
Landform: Hills, ground moraines, depressions, drainageways, drumlins
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

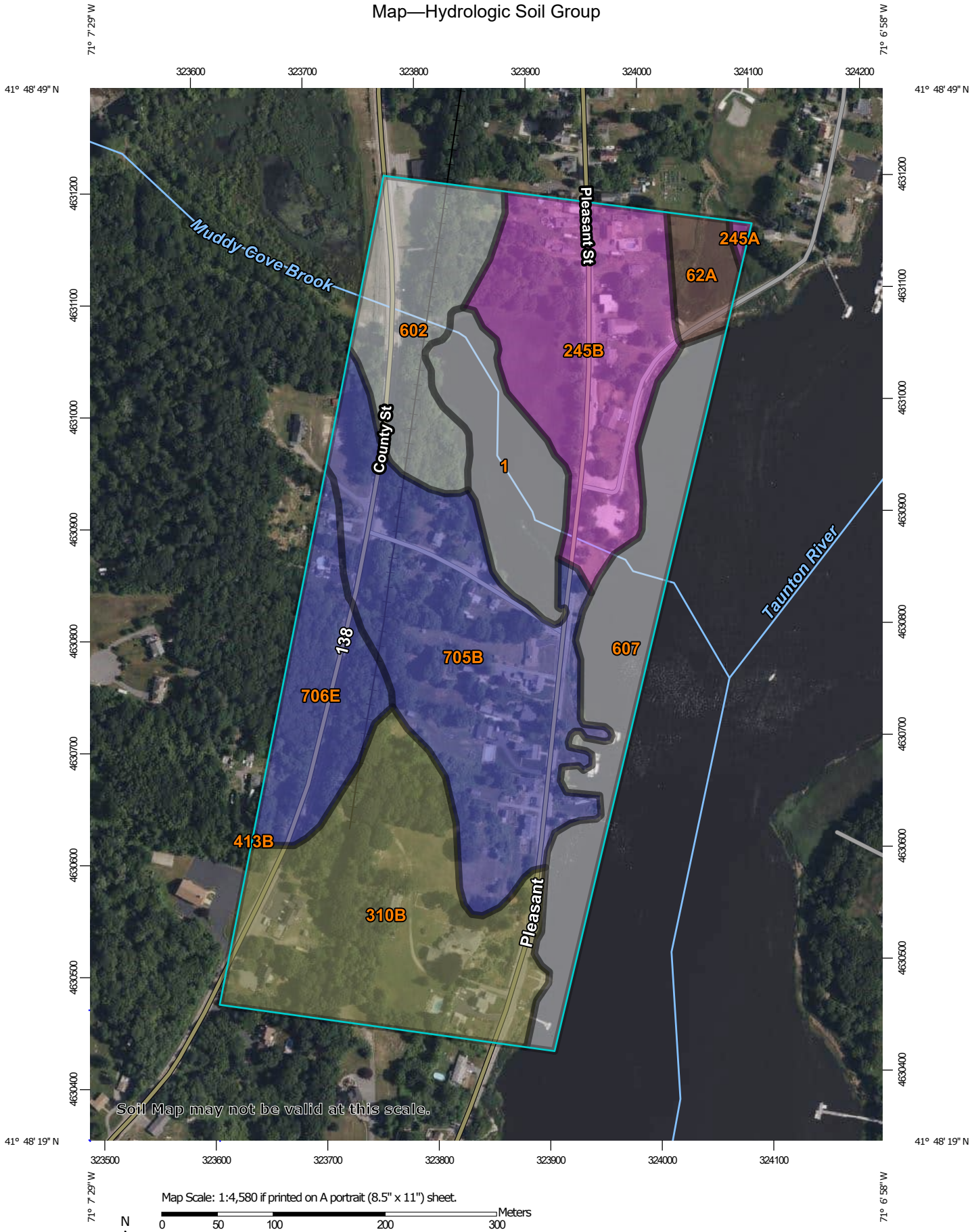
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bristol County, Massachusetts, Northern Part
Survey Area Data: Version 18, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Water		4.3	7.2%
62A	Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	B/D	1.5	2.5%
245A	Hinckley loamy sand, 0 to 3 percent slopes	A	0.1	0.2%
245B	Hinckley loamy sand, 3 to 8 percent slopes	A	9.9	16.6%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	C/D	12.6	21.2%
413B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very stony	B	0.0	0.0%
602	Urban land		5.8	9.8%
607	Water, saline		6.9	11.6%
705B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky	B	13.6	22.9%
706E	Charlton-Rock outcrop-Paxton complex, 15 to 35 percent slopes	B	4.8	8.1%
Totals for Area of Interest			**59.6**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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National Flood Hazard Layer FIRMette

FEMA

71°7'33"W 41°48'49"N



71°6'56"W 41°48'22"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/15/2022 at 11:46 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

The AE Zone category has been divided by a **Limit of Moderate Wave Action (LiMWA)**. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Massachusetts State Plane Mainland Zone (FIPS zone 2001). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from digital orthophotography. Basemap files were provided in digital form by Massachusetts Geographic Information System (MassGIS). Bristol County orthophotography was collected at 15-cm or 30-cm pixel resolution. Aerial photography is dated April 2008 and March and April 2009. The projection used in the preparation of this map is Massachusetts State Plane Mainland (FIPSZONE2001). The horizontal datum is NAD 83, GRS1980 spheroid.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

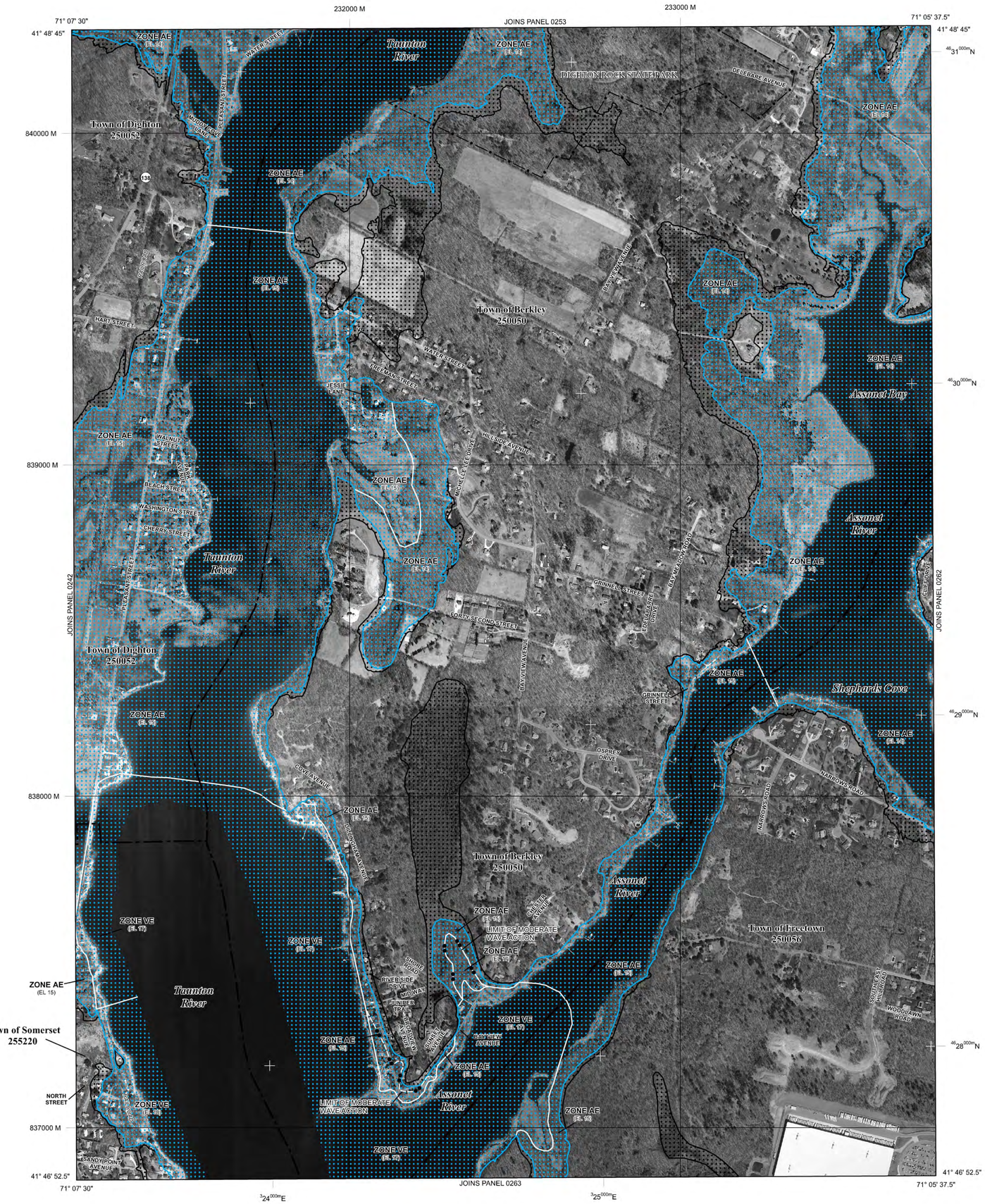
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For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map,** how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

Only coastal structures that are certified to provide protection from the 1-percent-annual chance flood are shown on this panel. However, all structures taken into consideration for the purpose of coastal flood hazard analysis and mapping are present in the DFIRM database in S_Gen_Struct.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- Limit of Moderate Wave Action
- Limit of Moderate Wave Action coincident with Zone Break
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- Culvert
- Bridge
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 4989000 M — 1000-meter grid values: Massachusetts State Plane Mainland Zone (FIPS Zone 2001), Lambert Conformal Conic projection
- 4 89 000m N — 1000-meter Universal Transverse Mercator grid ticks, zone 19N
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
July 7, 2009
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:
July 16, 2014 - to change Base Flood Elevations and Special Flood Hazard Areas, to change zone designations, to update the effects of wave action, to update corporate limits, to add roads and road names, to incorporate previously issued Letters of Map Revision and and to modify Coastal Barrier Resources System units.
For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0261G

FIRM

FLOOD INSURANCE RATE MAP

BRISTOL COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)

PANEL 261 OF 550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BERKLEY, TOWN OF	250050	0261	G
DIGHTON, TOWN OF	250052	0261	G
FREETOWN, TOWN OF	250056	0261	G
SOMERSET, TOWN OF	255220	0261	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 25005C0261G

MAP REVISED JULY 16, 2014

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

The AE Zone category has been divided by a **Limit of Moderate Wave Action (LiMWA)**. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Massachusetts State Plane Mainland Zone (FIPS zone 2001). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

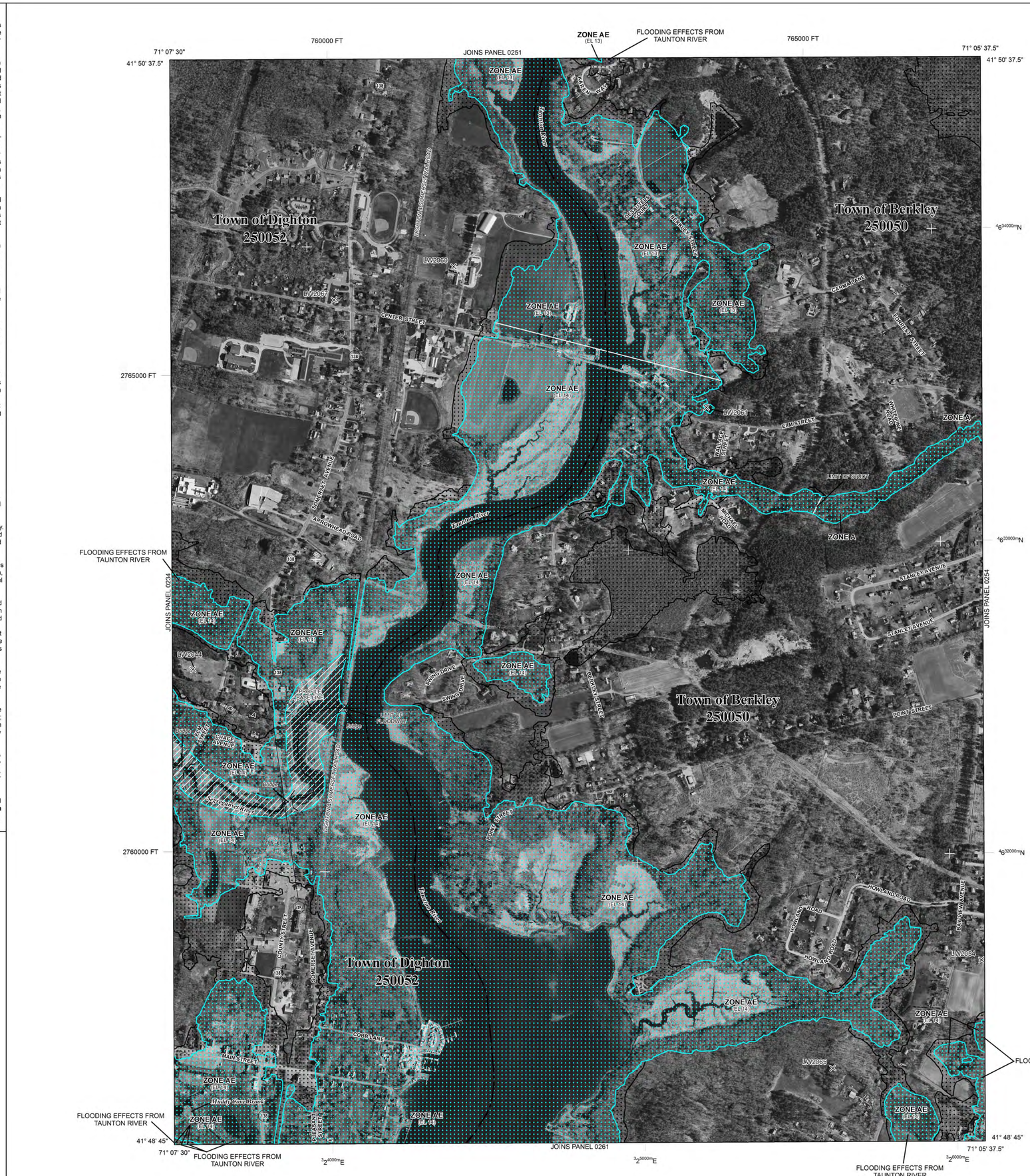
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LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

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- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- Culvert
- Bridge
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 4989000m N — 1000-meter Universal Transverse Mercator grid values, zone 19
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 • — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
JULY 7, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
July 16, 2014
July 16, 2015 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to change zone designations, to add roads and road names, and to incorporate previously issued Letters of Map Revision

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0253H

FIRM

FLOOD INSURANCE RATE MAP

Bristol County, Massachusetts
(ALL JURISDICTIONS)

PANEL 253 OF 550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BERKLEY, TOWN OF	250050	0253	H
DIGHTON, TOWN OF	250052	0253	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
25005C0253H
MAP REVISED
JULY 16, 2015

Federal Emergency Management Agency

Appendix C: SCM Constraints Plan

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	1	1
PROJECT FILE NO.	613636		

SCM CONSTRAINTS PLAN

LEGEND

HATCH	DESCRIPTION
	WITHIN 50'
	LAND PROTECTED BY ARTICLE 97

NAD 83

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

PROJECT END
STA 21+00
N2755877.1133
E759756.1123

PROJECT END
STA 13+41
N2756005.9479
E759864.7370

N06° 17' 24.48"E
400.000

CONSTRUCTION BASELINE
RECORD BASELINE

PC +03.30
D=030.7519
R=150.000
T=80.805
PT +83.80

MUDDY COVE LN
MUDDY COVE BROOK
PLEASANT ST

2025 TOWN LAYOUT PENDING

50' NO STRUCTURE ZONE
25' NO DISTURBANCE ZONE
100' BUFFER ZONE

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

N/F
TOWN OF DIGHTON
BOARD OF SELECTMEN
BK/PG 9130/96
PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

WILLIAM R. & MARGUERITE C. KANE
BK/PG 27781/340
PLEASANT STREET

TOWN OF DIGHTON
PARKS AND RECREATION COMMISSION
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO ARTICLE 97
AND 4F RESTRICTIONS

TRICENTENNIAL PARK

TOWN OF DIGHTON
CONSERVATION COMMISSION
BK/PG 19498/268
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TAUNTON RIVER

SEWER EASEMENT
(OWNER UNKNOWN)
BK. 327
AREA = 315 S.F.

20+00.02 MUDDY COVE=
11+71.54 PLEASANT STREET

TOWN OF DIGHTON
BRIDGE ACCESS/MAINTENACE
EASEMENT
BK/PG 21204/234
THOMAS CARTIN, JR., TRUSTEE
OF THE 2288 PLEASANT

PROPERTY LINE EXTENDED TO PROJECTED M.L.W. LINE
PROJECTED M.L.W. LINE (NOT SURVEYED)
LIMIT OF SURVEY

MEAN LOW WATER (ELEV.=-2.62')
MLW=-2.26'
MHW=2.10'
HTL=3.76'

BENCHMARK: Z-TBM-HYD BNT BOLT-CHIS X
BENCHMARK: Z-TBM-HYD HYD BOLT
RIM=8.85'

0 20 50 100
SCALE: 1" = 20'

613636_(CONSTRAINTS PLAN).DWG Plotted on 7-Jan-2026 10:29 AM

Pleasant Street Bridge (D-08-002) Replacement

Long-Term Pollution Prevention Plan

Dighton, MA

PREPARED FOR

massDOT

10 Park Plaza
Boston, MA 02116

PREPARED BY

BETA
www.BETA-Inc.com

BETA Group, Inc
701 George Washington Highway
Lincoln, Rhode Island, 02865

01/14/2026

Table of Contents

Long-Term Pollution Prevention Plan 1

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1.2 Inspection and Maintenance of Stormwater Assets 1
1.3 Maintenance of Landscaped Areas 2
1.4 Snow and Ice Management 3
1.5 Street Sweeping 3
1.6 Prohibition of Illicit Discharges 3
1.7 Spill Prevention and Response 3

Long-Term Pollution Prevention Plan

This Long-Term Pollution Prevention Plan (LTPPP) describes the approach for pollution prevention and related maintenance activities for the Pleasant Street Bridge (D-08-002) Replacement Project in Dighton, MA. In general, long-term pollution prevention and related maintenance activities will be conducted consistently with:

- The National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer System (MS4),
- MassDOT's anticipated NPDES Transportation Separate Storm Sewer System (TS4) Permit, and
- Measures outlined in MassDOT's Stormwater Management Plan (SWMP).

This LTPPP satisfies the requirements related to pollution prevention under Massachusetts Stormwater Standards 4, 5, 6, and 10.

The Town of Dighton will be responsible for the operation and maintenance of all stormwater management systems within the project area. Questions or concerns regarding activities associated with this Long-Term Pollution Prevention Plan should be addressed to the Town of Dighton's Highway Department located at 2011 County Street, Dighton, MA 02715, phone (774) 218-5339.

1.0 Practices for Long-Term Pollution Prevention

For the facilities covered, long-term pollution prevention includes the following measures.

1.1 Litter Pick-up

The Town of Dighton will conduct litter pick-up adjacent to the limits of work in conjunction with routine road maintenance activities.

1.2 Inspection and Maintenance of Stormwater Assets

The Town of Dighton will conduct annual inspections of the slopes adjacent to all bridge abutments and roadways to ensure banks are stabilized and in good condition. The following table summarizes the potential maintenance actions the Town of Dighton will conduct on slopes adjacent to bridge abutments and roadways in the Project area.

Stormwater Feature	*Potential Maintenance Actions*	
Stabilized Roadway Shoulders and Modified Rockfill along Abutments	• *Remove and properly dispose of accumulated material (e.g., sediment, trash, leaf litter, debris)* • *Mow vegetated areas and remove and dispose of grass clippings* • *Stabilize or reconstruct eroded areas and reseed* • *Replace stones/soil and/or replant vegetation*	• *Remove woody growth* • *Treat invasive plants according to MassDOT Landscape Design Section*

Based on the results of the inspection, repairs will be made in accordance with MassDOT standard practices. Maintenance will be prioritized given the urgency of the required maintenance and availability of staff, contracts, etc. Maintenance may require contracting if existing contracts are unavailable to perform the work. More intensive remedial activities may require permitting and/or an engineering solution.

For maintenance activities that could result in discharges of sediments or other contaminants into wetlands, waterways, or other resource areas regulated under 310 CMR 10.00, the responsible maintenance personnel will employ measures to prevent migration of these sediments/contaminants. Such temporary measures may include, but are not necessarily limited to, the use of siltation barriers, catch basin silt sacks/filter bags, pipe plugs, cofferdams, turbidity curtains, or other practices designed to prevent such discharges.

Where maintenance occurs in areas that are confined, with no risk of discharge to adjacent water bodies, no special measures may be needed. Examples include maintenance of roadside shoulders.

1.3 Maintenance of Landscaped Areas

The Town of Dighton will conduct routine mowing according to standard MassDOT practices.

Except in rare circumstances, the Town of Dighton does not use fertilizers, herbicides, and pesticides for the maintenance of facilities. Exceptions include using fertilizer to ensure the survival of new plantings and herbicides to control invasive plants. Use of fertilizers and herbicides is reviewed and approved by the MassDOT Landscape Design Section and District *5* Environmental Engineer prior to application. Local Conservation Commission review may also be required.

1.4 Snow and Ice Management

The Town of Dighton will conduct Snow and Ice Management consistent with the practices outlined in the MassDOT Snow and Ice Control Program Environmental Status and Planning Report (ESPR), formerly known as the Snow and Ice Control Generic Environmental Impact Report (GEIR).

In accordance with the Snow and Ice Control ESPR, no sand is used on MassDOT properties for snow and ice control.

1.5 Street Sweeping

The Town of Dighton will conduct routine highway cleaning, with a brush-type street sweeper in accordance with standard MassDOT practices. Sweeping will occur annually in the Spring.

1.6 Prohibition of Illicit Discharges

The MassDEP Stormwater Management Standard 10 prohibits illicit discharges to the stormwater management system. Illicit discharges are discharges that do not consist entirely of stormwater, except for certain specified non-stormwater discharges.

In accordance with the existing MS4 permit and anticipated TS4 permit requirements, examples of discharges from the following sources are not considered illicit discharges:

- Firefighting activities*
- Foundation drains
- Water line flushing
- Footing drains
- Landscape irrigation
- Individual residential car washing
- Uncontaminated groundwater
- Rising groundwater
- Diverted stream flows
- Flows from riparian habitats/wetlands
- Potable water sources
- Dechlorinated swimming pool water
- Street wash waters
- Wash water from residential buildings (no detergents)
- Condensation from air conditioning units
- Run-on from private driveways caused by precipitation
- Lawn watering
- Water from crawl space pumps

*Water from firefighting activities is allowed and need only be addressed where they are identified as significant sources of pollutants to waters of the United States.

Based on plan review and confirmation in the field, there are no known or proposed illicit connections associated with the Pleasant Street Bridge (D-08-002) Replacement Project.

1.7 Spill Prevention and Response

The Town of Dighton will implement response procedures within the limits of work for any significant release of hazardous materials such as fuels, oils, or chemical materials that have the potential of discharging to Muddy Cove Brook and Taunton River, both perennial streams.

Reportable quantities will immediately be reported to the applicable Federal, State, and local agencies as required by law. Reportable quantities of chemical, fuels, or oils are established under the Clean Water Act and enforced through MassDEP. The MassDEP Emergency Response Program shall be immediately notified in accordance with required procedures for the report of a release (telephone (888) 304-1133).

The Town of Dighton works with first responders and/or public water supply owners to determine the best approach to protect water supplies and provides training and materials to carry out action plans. In the case of a spill, applicable containment and clean-up procedures will be performed immediately. These procedures are implemented in accordance with the Unified Response Manual at the local level by first responders, which includes the Town of Dighton local public safety departments (e.g., fire, police, public works, board of health). The Town of Dighton will be on-site to aid with traffic control and to provide clean-up supplies, as necessary. Spill material collected during the response will be promptly removed and disposed of in accordance with Federal, State, and local requirements. If necessary, a licensed emergency response contractor will assist in cleanup of releases depending on the amount of the release and the ability of the responsible party to perform the required response.

APPENDIX K

- **NPS Coordination**

IMPROVING COMMUNITIES TOGETHER

April 23, 2025

Mr. Jamie Fosburgh
Wild & Scenic Rivers Program National Parks Service
15 State Street
Boston, MA 02109
Jamie_Fosburgh@nps.gov

Re: Dighton – Pleasant Street Bridge Replacement
MassDOT Project Number 613636

Dear Mr. Fosburgh:

The Massachusetts Department of Transportation (MassDOT) Highway Division and the Town of Dighton, Massachusetts are currently in the 25% design stage associated with replacement of Muddy Cove Bridge that carries Pleasant Street over Muddy Cove Brook (the Project).The enclosed Project description, construction plan, and locus figure are included for your office's review. MassDOT is anticipating that activities associated with the bridge replaced will result in impacts along the Taunton River.

The purpose of the Project is to improve safety and transportation infrastructure in eastern Dighton, along the Taunton River. The existing bridge consists of a combination of reinforced concrete tee beams beneath the original roadway, and concrete-encased steel girders beneath the original trolly track on the east side as well as concrete abutments and wingwalls. Routine inspections have revealed evidence of cracking and spalling throughout the main bridge span, abutments and wingwalls.

The replacement bridge has been designed in accordance with 2020 AASHTO LRFD Bridge Design Specifications for HL-93 loading. Additional information on the proposed design can be found in the attached project description.

A Project information meeting was previously held with NPS on August 29, 2022 during the initial design phase of the Project, however minor modifications have been made since becoming a MassDOT project. MassDOT is requesting that National Parks Service review of the conceptual design plans and the scope of work so that we can address any potential issues prior to proceeding to future design stages.

If you have any questions, please contact Todd Warzecki at twarzecki@beta-inc.com. If you have any questions concerning the enclosed project information, please contact: Carrie Lavallee, P.E., Chief Engineer, MassDOT Highway Division, 10 Park Plaza, Boston, MA 02116, Attn: Gregory Frazier, gregory.frazier@state.ma.us.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Todd Warzecki, P.E.
Associate

BETA GROUP, INC.
89 Shrewsbury Street, Suite 300, Worcester, MA 01604
P: 508.756.1600 | W: www.BETA-Inc.com

Atts: Project Description
Figure 1 – Location Map
25% Design Schematic

cc: Taunton River Stewardship Council
G Frazier, MassDOT (w/o att)

Project Description
Pleasant Street Bridge Replacement Project
MassDOT Project Number 613636

The Pleasant Street Bridge Replacement Project (the Project) proposes to replace the existing bridge carrying Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts (the Site). The purpose of the Project is to improve safety and transportation infrastructure in eastern Dighton, along the Taunton River. Pleasant Street is classified as a local road that conveys traffic from Taunton to Somerset in eastern Dighton. Muddy Cove Lane is also located within the Project area and is classified as a local road that conveys traffic between Pleasant Street and County Street (Figure 1 – Project Locus). The Project crosses Muddy Cove River, a Tidal Estuary that is tributary to the Taunton River. Within immediately adjacent to the Project are Tidal Waters of the US, including Salt Marsh. In addition, the entirety of the Project is located below the 100-year coastal flood elevation (AE) of 14' (NAVD88).

The existing bridge consists of a combination of reinforced concrete tee beams beneath the original roadway, and concrete encased steel girders beneath the original trolly track on the east side. The substructure consists of reinforced concrete abutments, U-wingwalls to the northwest and southeast, and splayed wingwalls to the northeast and southwest. These are supported on piles of unknown specification and depth. The existing structure has a clear span of approximately 28 feet (square span of 23' -4 ¾") , an out-to-out width of 36'-4 1/2", and a curb-to-curb width of 32'-1/2". Over the bridge, there is a hot mix asphalt wearing surface and concrete railing on both sides. The trolley line on the east side is no longer present and is anticipated to have been buried or removed. The bridge is currently posted for 7-ton, 15-ton, and 22-ton weight limits.

According to the routine MassDOT Structures Inspection Field Report dated 2018 and the Weston & Sampson Alternative Analysis Report dated 2019, the overall condition of the superstructure is fair, and the overall condition of the substructure is satisfactory. Hairline cracks with efflorescence and minor spalls are typically found throughout the deck underside. All encased beams have map cracking with varied amounts of efflorescence and the abutments have locations of minor cracking and delamination. Additionally, the wingwalls typically exhibit cracking and abrasion.

The Design Team reviewed the possibility of increasing the clearance of the bridge for personal watercraft use. Due to the existing Pleasant Street roadway profile, the presence of Muddy Cove Lane located immediately southwest of the bridge, and adjacent properties along the Roadway, it was determined that increasing the clearance would require significant changes to the roadway profile of both Muddy Cove Lane and Pleasant Street, as well as extensive right-of-way impacts. For these reasons, it was determined that increasing the clearance was not feasible as part of the proposed bridge replacements project. Accordingly, the proposed bridge conditions will generally mirror existing conditions for span and clearance to avoid extensive impacts to roadway conditions.

The replacement bridge has been designed in accordance with 2020 AASHTO LRFD Bridge Design Specifications for HL-93 loading. The proposed bridge will have a skewed span of 26 feet (square span of 23' -4 ¾"), the bridge will have an out-to-out width of 40', and hydraulic opening of 244 square feet. The proposed roadway cross section includes two (2) 11-foot travel lanes with a 2-foot shoulder on the east side. The western shoulder will vary from 2 feet to 9 feet to provide adequate sight distance from Muddy Cove Lane. A 6-foot concrete sidewalk is proposed along the eastern side with granite curbing. The proposed cross section at the bridge will be tapered to meet the existing approach roadway conditions. Modified rockfill will be reestablished following bridge replacement along all four quadrants for slope stabilization.

During construction, Pleasant Street will be closed to all vehicular and pedestrian traffic for the duration. Traffic will be detoured from Pleasant Street to Hart Street to County Street (Route 106) to Main Street back to Pine Street, for a detour length of approximately 1.75 miles.

Permanent Right of Way impacts are proposed as part of this Project. Temporary easements will be required for grading and construction. Pleasant Street and Muddy Cove Lane state highway layouts are both discontinued. The Town is considering reestablishing them concurrently with this Project.

Stormwater infrastructure within the Project limits is classified as “country drainage” and no changes or improvements are proposed due to the limited ROW, topography, and resources adjacent to the Project.

In water work will consist of reestablishing the existing modified rock fill at all four bridge quadrants, as well as installation of cofferdams along the abutments so the bridge abutments can be removed and replaced in the dry. Impacts to Tidal Waters of the US will include 84 sf of temporary impacts and 1,262 sf of permanent impacts below the High Tide Line. In addition, 98.2 cubic yards of dredging below the Mean High Water Elevation is proposed to excavate to 1-foot below the bridge footings. No Salt Marsh alteration is proposed, and fencing will be installed at the limit of alteration to protect the Salt Marsh during construction.



Figure 1
USGS Site Locus
Pleasant Street Bridge
Dighton, MA

N
W E
S

0 1,000 2,000 Feet

1 inch = 1,000 feet

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Data Source: MassGIS USGS Topographic Quadrangle Images (2001)

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 21+01 TO 20+67 RT (MUDDY COVE LN)
TRANSITION TO BRIDGE RAIL STA 20+67 TO 20+33 LT
BRIDGE S3-TL4 GUARDRAIL STA 20+33 TO 12+73 LT
(MUDDY COVE LN AFTER 20+33 AND PLEASANT STREET AFTER 12+73)
TRANSITION TO BRIDGE RAIL STA 12+73 TO 13+07 LT
TRANSITION TO NCHRP 350 GUARDRAIL STA 13+07 TO 13+41 LT

TANGENT END TREATMENT - TL-3 STA 10+00 TO 10+25 RT
GUARDRAIL - TL-3 (SINGLE FACED, DEEP POSTS) STA 10+25 TO 11+17 RT
TRANSITION TO BRIDGE RAIL STA 11+17 TO 11+51RT
BRIDGE S3-TL4 GUARDRAIL STA 11+51 TO 12+20 RT
TRANSITION TO BRIDGE RAIL STA 12+22 TO 12+56 RT
TRAILING ANCHORAGE STA 12+56 TO 12+66 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

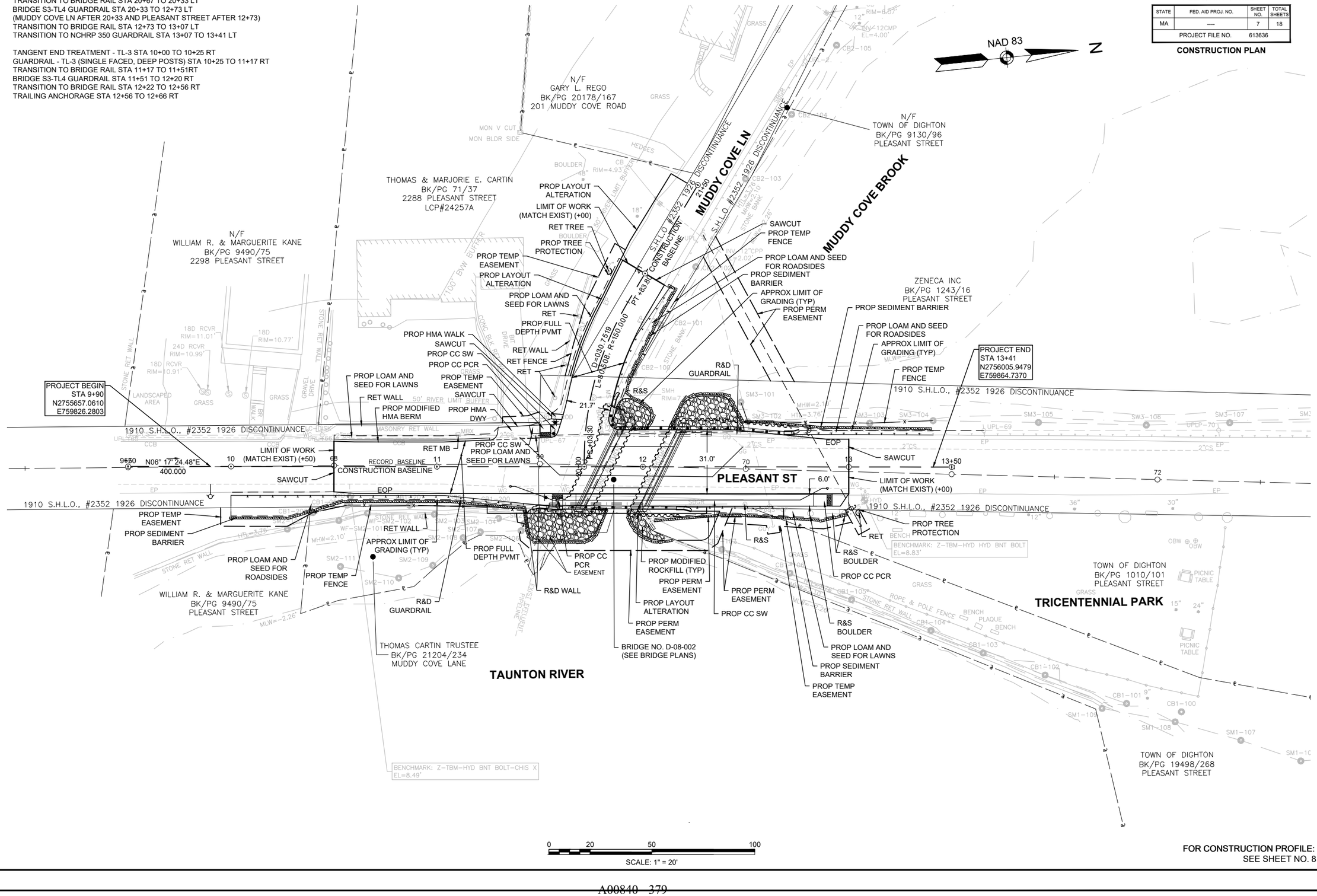
DRAINAGE DETAILS

NONE

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	7	18
PROJECT FILE NO.	613636		

CONSTRUCTION PLAN


NAD 83
N
N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD
N/F
TOWN OF DIGHTON
BK/PG 9130/96
PLEASANT STREET
MUDDY COVE LN
MUDDY COVE BROOK
THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A
N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET
ZENECA INC
BK/PG 1243/16
PLEASANT STREET
PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803
PROJECT END
STA 13+41
N2756005.9479
E759864.7370
1910 S.H.L.O., #2352 1926 DISCONTINUANCE
S.H.L.O #2352 1926 DISCONTINUANCE
CONSTRUCTION BASELINE
RECORD BASELINE
CONSTRUCTION BASELINE
PLEASANT ST
TAUNTON RIVER
TRICENTENNIAL PARK
TOWN OF DIGHTON
BK/PG 1010/101
PLEASANT STREET
TOWN OF DIGHTON
BK/PG 19498/268
PLEASANT STREET
THOMAS CARTIN TRUSTEE
BK/PG 21204/234
MUDDY COVE LANE
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
PLEASANT STREET
BRIDGE NO. D-08-002
(SEE BRIDGE PLANS)
BENCHMARK: Z-TBM-HYD BNT BOLT-CHIS X
EL=8.49'
BENCHMARK: Z-TBM-HYD BNT BOLT
EL=8.83'
PROP LAYOUT ALTERATION
LIMIT OF WORK (MATCH EXIST) (+00)
RET TREE
PROP TREE PROTECTION
PROP TEMP EASEMENT
PROP LAYOUT ALTERATION
PROP LOAM AND SEED FOR LAWNS
RET
PROP FULL DEPTH PVMT
PROP HMA WALK
SAWCUT
PROP CC SW
PROP CC PCR
RET
RET WALL
RET FENCE
PROP LOAM AND SEED FOR LAWNS
PROP TEMP EASEMENT
SAWCUT
RET WALL
PROP MODIFIED HMA BERM
PROP HMA DWY
LIMIT OF WORK (MATCH EXIST) (+50)
SAWCUT
EOP
RET MB
PROP CC SW
PROP LOAM AND SEED FOR LAWNS
PROP TEMP EASEMENT
PROP SEDIMENT BARRIER
PROP LOAM AND SEED FOR ROADSIDES
PROP TEMP FENCE
APPROX LIMIT OF GRADING (TYP)
RET WALL
PROP FULL DEPTH PVMT
R&D GUARDRAIL
R&D WALL
PROP CC PCR EASEMENT
PROP MODIFIED ROCKFILL (TYP)
PROP PERM EASEMENT
PROP LAYOUT ALTERATION
PROP PERM EASEMENT
PROP CC SW
PROP PERM EASEMENT
R&S
R&S BOULDER
PROP CC PCR
R&S BOULDER
PROP LOAM AND SEED FOR LAWNS
PROP SEDIMENT BARRIER
PROP TEMP EASEMENT
SAWCUT
PROP LOAM AND SEED FOR ROADSIDES
PROP SEDIMENT BARRIER
APPROX LIMIT OF GRADING (TYP)
PROP PERM EASEMENT
PROP TEMP FENCE
PROP TREE PROTECTION
RET
LIMIT OF WORK (MATCH EXIST) (+00)
R&D GUARDRAIL
R&S
PROP LOAM AND SEED FOR ROADSIDES
PROP SEDIMENT BARRIER
APPROX LIMIT OF GRADING (TYP)
PROP TEMP FENCE
PROP LOAM AND SEED FOR LAWNS
PROP HMA DWY
PROP TEMP EASEMENT
SAWCUT
RET WALL
PROP MODIFIED HMA BERM
PROP TEMP EASEMENT
PROP SEDIMENT BARRIER
PROP LOAM AND SEED FOR ROADSIDES
PROP TEMP FENCE
APPROX LIMIT OF GRADING (TYP)
PROP FULL DEPTH PVMT
PROP CC PCR EASEMENT
R&D WALL
R&D GUARDRAIL
PROP PERM EASEMENT
PROP SEDIMENT BARRIER
PROP TEMP EASEMENT
PROP LOAM AND SEED FOR LAWNS
PROP SEDIMENT BARRIER
PROP TEMP EASEMENT
PROP TREE PROTECTION
R&S BOULDER
PROP CC PCR
R&S BOULDER
PROP LOAM AND SEED FOR LAWNS
PROP SEDIMENT BARRIER
PROP TEMP EASEMENT
PROP PERM EASEMENT
PROP CC SW
PROP PERM EASEMENT
PROP LAYOUT ALTERATION
PROP PERM EASEMENT
PROP MODIFIED ROCKFILL (TYP)
PROP CC PCR EASEMENT
R&D WALL
R&D GUARDRAIL
PROP FULL DEPTH PVMT
APPROX LIMIT OF GRADING (TYP)
PROP TEMP FENCE
PROP LOAM AND SEED FOR ROADSIDES
PROP SEDIMENT BARRIER
PROP TEMP EASEMENT
SAWCUT
EOP
LIMIT OF WORK (MATCH EXIST) (+00)
PROP TREE PROTECTION
RET
PROP TEMP FENCE
PROP LOAM AND SEED FOR ROADSIDES
PROP SEDIMENT BARRIER
PROP TEMP EASEMENT

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RECORD OF MEETING

Client:	Town of Dighton	**Date:**	10/11/2022
Meeting Date:	8/29/2022	**Prepared By:**	Tyler Drew
Meeting Location:	Virtual – Zoom Meeting	**Job Number:**	22.10328.00
Meeting Topic:	Pleasant Street Bridge Replacement Project National Parks Service (NPS) Coordination		

ATTENDEES:

NAME	ADDRESS / AFFILIATION	NAME	ADDRESS / AFFILIATION
Jamie H Fosburgh	NPS	Todd Warzecki, PE	BETA
Lauren Bonatakis	NPS	Tyler Drew	BETA
Tom Ferry	Town of Dighton	Laura Krause	BETA
Michael Mullen	Town of Dighton		

RECORD OF MEETING MINUTES:

Note: This Record of Meeting groups discussion points talked about during the meeting by topic for ease of review

I. Introductions

- Ms. Krause opened the meeting and asked everyone to introduce themselves. Attendees introduced themselves as follows:
  - Michael Mullen – Town Administrator for the Town of Dighton
  - Tom Ferry – Highway Superintendent for the Town of Dighton
  - Lauren Bonatakis – Natural Resource Specialist with the Wild & Scenic River Program with the National Parks Service (NPS).
  - Jamie Fosburgh – Northeast Regional Wild & Scenic River Program Manager for the National Parks Service (NPS).
  - Todd Warzecki – BETA's Project Manager for this Project.
  - Laura Krause – Lead Scientist and BETA's Permitting Lead for this Project.
  - Tyler Drew – Wildlife Biologist for BETA
- Ms. Krause then described the purpose of the meeting, to discuss aspects of the Pleasant Street Bridge Project. The Project Site locus was distributed prior to the meeting. She then requested that Todd provide a summary of the Project before the attendees provide their questions and comments.
- Mr. Warzecki provided a summary of existing conditions as well as proposed improvements which include replacing railing with metal bridge rails and widening the roadway to accommodate widened shoulders and to improve sight distance at Muddy Cove Lane.

DRAFT

- Ms. Krause then opens up the discussion to other attendees to provide their questions and comments.

II. Questions and Comments from the National Park Service:

DESIGN ALTERNATIVES:

- Mr. Fosburgh mentioned he has several questions regarding the proposed design alternative. The first of which is why the northern abutment will remain as part of the Project.
  - Mr. Warzecki responded by saying that the purpose of leaving the abutment in place is to avoid altering the hydrology of the existing channel. The abutment will also protect the new abutment from scour. Site constraints make leaving the abutment on the south side challenging.
- Mr. Fosburgh inquired whether there would be a benefit to widening the existing hydraulic opening to the Taunton River.
  - Mr. Warzecki explained that the design focuses on preserving the existing channel characteristic, accordingly, the potential impacts of widening the channel through removing the northern abutment were not evaluated.
  - Mr. Fosburgh explained that the typical trend is to increase capacity of the hydraulic openings to accommodate climate change impacts and increased storm flow.
  - Mr. Warzecki responded by explaining that Projects are typically designed considering the 50-year flood level, however, the entire Site would be underwater during these events making the hydraulic characteristics of the channel irrelevant.
- Mr. Fosburgh pointed out that the bridge structure is proposed to be raised by 8” and asked if any other modifications can be made to allow accessibility for small watercraft.
  - Mr. Warzecki explained that the bridge structure is raised as much as is feasible, as the high tide elevation already reaches the bottom of the bridge deck. He also explained that a box culvert was considered, though the 33’-34’ width of the bridge requires a large precast structure that would be difficult to produce and transport, also installing the utilities above the culvert, and under the roadway would further reduce the height of the bridge.
- Mr. Fosburgh asked why the arch design was rejected.
  - Mr. Warzecki explained that for both the box culvert and concrete arch designs, the need to install utilities reduces the size of the hydraulic opening. The current design creates space for the utility pipes to be mounted under the bridge without interfering with hydraulic flow.
  - Mr. Fosburgh suggested that using a concrete arch layout could include removal of the northern retaining wall to improve hydrology.
  - Mr. Ferry says that while this would improve hydrology for the site, it would not be effective unless the bridge and roadway were raised to accommodate flow.
  - Mr. Fosburgh says that raising the roadway is not a desirable alternative, though the concrete arch design has worked well for previous projects.

ENDANGERED SPECIES:

- Ms. Bonatakis mentioned that the Site is within mapped Norther Diamondback Terrapin (*Malaclemys terrapin*) habitat and inquired whether additional considerations have been made to protect potential breeding habitat.

- Ms. Krause suggested that BMP's such as turtle exclusion fencing could be included during construction if requested
- Mr. Drew explained that while several areas of salt marsh suitable for terrapin breeding are located nearby, it does not exist in the immediate vicinity of the Project. This means that measures should focus on protecting migrating adults through the use of BMP's such as exclusion fencing during construction.
- Mr. Fosburgh mentioned resources on terrapin nesting from previous projects and offered to provide this guidance to BETA.

ROADWAY LAYOUT:

- Mr. Fosburgh indicated that the new guardrails and widened roadway look good and asks whether considerations were made for sidewalks.
  - Mr. Warzecki indicated that an additional 9' of width was added for the shoulders, however there are no approach sidewalks to connect to, and ADA compliant handicap ramps would end up outside of the bridge layout. He explained that the shoulders were designed to be 5' wide in either direction to accommodate a future potential bike trail along the Taunton River, should it be constructed in the Project's vicinity. They are currently designed to match existing conditions with the ability to change the layout in the future.
- Mr. Fosburgh asked why there is additional widening of the shoulders along the bridge.
  - Mr. Warzecki explained that the western shoulder will be widened to improve sight distance to oncoming traffic. Distance will improve from 50' to 200' and w included in the 25% design plans.
- Mr. Fosburgh asked how the approach roadway and guardrails will be altered to match the widened roadway.
  - Mr. Warzecki indicated that the roadway will be widened using a 3.5' overhang, the max allowable, to minimize the amount of increase in substructure size. He also indicated that the approach roadway will remain the same, with a splayed wingwall on the west side to accommodate the widened deck. This and the new guardrail will connect to existing layout.

WRAP-UP / ACTION ITEMS

- Ms. Krause thanks the NPS for meeting and confirms she will be reaching out for the supplementary Terrapin nesting info. She indicates that any additional documentation will be passed along to NPS.
- Mr. Fosburgh indicated he will discuss the Project further with Ms. Bonatakis and will pass along additional written comments.
- Mr. Warzecki indicates that the 25% Design plans are planned to be completed by the end of September.

From: Bonatakis, Lauren E <lauren_bonatakis@nps.gov>
Sent: Tuesday, September 27, 2022 2:19 PM
To: Laura Krause; Fosburgh, Jamie H
Cc: Todd Warzecki; Tyler Drew
Subject: Re: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

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Hi Laura,
Many thanks for taking the time to go over the Pleasant Street Bridge replacement project with us a few weeks ago. It was a helpful discussion for us to understand the overall impacts of this project. As you move forward with the design, NPS would like your team to consider the following elements:

1. Consider entirely removing the old north abutment – NPS identifies complete removal of old abutments as a best practice. Complete removal will also improve aesthetics and allow for consideration of alternative designs such as a pre-cast arch (below)
2. Consider an alternative bridge structure using a pre-cast concrete arch to better allow for recreational passage access to and from Muddy Cove. Improving canoe and kayak access to/from Muddy Cove would be an important recreational access enhancement, and a pre-cast arch would create additional clearance for such passage.
3. Possible nesting area for Terrapins – The Taunton River Watershed Alliance is working to assess the population and nesting habitat areas of Diamondback Terrapins within the Taunton River Watershed. TRWA has indicated that there is nesting habitat within Muddy Cove. We ask that you carefully assess the site before beginning the project.
4. Substrate beneath bridge. It will be important to match existing bed conditions and elevation beneath the bridge to provide habitat connectivity and match existing tidal inflow/outflow conditions. Lowering of the substrate beneath the bridge could cause more rapid and/or complete emptying of Muddy Cove. Elevating the substrate could create a "dam" effect altering water flow and retention. Therefore we recommend careful attention to matching existing conditions beneath the bridge. Also, as canoes/kayaks will potentially be passing in low-water conditions, avoid any angular stone that would create hazards for boat scraping or damage.
5. Exposed Rock/Bank stabilization. We recommend matching existing conditions re: stone size, color, etc., for any exposed bank stabilization. Areas above Ordinary/Mean High Water should be choked, loamed and seeded.

Please reach out if you have any questions or additional comments.

Thanks,
Lauren

Lauren Bonatakis | she/her
Natural Resource Specialist
Partnership Wild and Scenic Rivers Program
National Park Service
Interior Region 1 - North Atlantic-Appalachian
617-599-6802 | lauren_bonatakis@nps.gov
Hours: Monday-Friday 9:00am - 5:30pm

From: Bonatakis, Lauren E <lauren_bonatakis@nps.gov>
Sent: Wednesday, August 24, 2022 4:43 PM
To: Laura Krause <LKrause@BETA-Inc.com>; Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: Re: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

Excellent, thank you! Looking forward to our discussion.

All the best,
Lauren

Lauren Bonatakis | she/her
Natural Resource Specialist
Partnership Wild and Scenic Rivers Program
National Park Service
Interior Region 1 - North Atlantic-Appalachian
617-599-6802 | lauren_bonatakis@nps.gov
Hours: Monday-Friday 9:00am - 5:30pm

From: Laura Krause <LKrause@BETA-Inc.com>
Sent: Wednesday, August 24, 2022 4:04 PM
To: Bonatakis, Lauren E <lauren_bonatakis@nps.gov>; Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: RE: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

Lauren and Jaime,

Tyler just sent out a Zoom Meeting invite for Monday at 10.

While we had sent a Teams invite earlier, please use the Zoom link on Monday. We have cancelled the Teams meeting, but I wanted to let you know to avoid confusion on Monday.

Looking forward to talking about the Project!

Many thanks,
Laura

Laura Krause
Lead Scientist

BETA Group, Inc. | 844.800.2382 x7113
Twitter | LinkedIn | Facebook | Instagram

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From: Bonatakis, Lauren E <lauren_bonatakis@nps.gov>
Sent: Wednesday, August 24, 2022 2:54 PM
To: Laura Krause <LKrause@BETA-Inc.com>; Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: Re: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

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Hi Laura,

No problem. Jamie and I are both available on Monday, 8/29 at 10am. I can schedule a MS Teams call if needed.

Thanks!
Lauren

Lauren Bonatakis | she/her
Natural Resource Specialist
Partnership Wild and Scenic Rivers Program
National Park Service
Interior Region 1 - North Atlantic-Appalachian
617-599-6802 | lauren_bonatakis@nps.gov
Hours: Monday-Friday 9:00am - 5:30pm

From: Laura Krause <LKrause@BETA-Inc.com>
Sent: Wednesday, August 24, 2022 9:42 AM
To: Bonatakis, Lauren E <lauren_bonatakis@nps.gov>; Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: RE: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

Hi Lauren,

Unfortunately, neither Thursday or Friday works for us this week.

Are you available on Monday around 10?

Thank you!
Laura

Laura Krause
Lead Scientist

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From: Bonatakis, Lauren E <lauren_bonatakis@nps.gov>
Sent: Tuesday, August 23, 2022 2:21 PM
To: Laura Krause <LKrause@BETA-Inc.com>; Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: Re: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

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Hi Laura,

Apologies for not getting back to you sooner! Jamie and I are both available tomorrow afternoon (after 12p); Thursday before 1pm or after 2pm, or anytime on Friday. Would any of these times fit in your schedule to discuss the Pleasant St Bridge replacement?

Thanks!
Lauren

Lauren Bonatakis | she/her
Natural Resource Specialist
Partnership Wild and Scenic Rivers Program
National Park Service
Interior Region 1 - North Atlantic-Appalachian
617-599-6802 | lauren_bonatakis@nps.gov
Hours: Monday-Friday 9:00am - 5:30pm

From: Laura Krause <LKrause@BETA-Inc.com>
Sent: Tuesday, August 16, 2022 4:47 PM
To: Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>; Bonatakis, Lauren E <lauren_bonatakis@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: RE: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

Wed/Th works for me!

Thanks,
Laura

Laura Krause
Lead Scientist

BETA Group, Inc. | 844.800.2382 x7113
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From: Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>
Sent: Tuesday, August 16, 2022 3:45 PM
To: Laura Krause <LKrause@BETA-Inc.com>; Bonatakis, Lauren E <lauren_bonatakis@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: Re: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

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Laura-

Thanks for sending. Maybe we can shoot for next week sometime. I'll confer with Lauren and we'll suggest something in the wed-th range if that might work.....

Thanks,

Jamie

Jamie Fosburgh, Branch Chief
Partnership Wild and Scenic Rivers
15 State Street, Boston, MA 02109
617 223-5191 (o)
617 314-2810 (c)
jamie_fosburgh@nps.gov
M-F 8:30-5:30

From: Laura Krause <LKrause@BETA-Inc.com>
Sent: Tuesday, August 16, 2022 2:42 PM
To: Fosburgh, Jamie H <Jamie_Fosburgh@nps.gov>; Bonatakis, Lauren E <lauren_bonatakis@nps.gov>
Cc: Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <TDrew@BETA-Inc.com>
Subject: [EXTERNAL] Pleasant Street Bridge Replacement - Dighton, MA

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Hi Jamie and Lauren,

Hope you are both doing well!

Proposal No. 613636-136482

We are working with the Town of Dighton who plan to replace the Pleasant Street Bridge in Dighton, MA where Muddy Cove meets the Taunton River (see attached Figure for location). I have also included photos of the Project area and preliminary bridge concept plans.

We were hoping to schedule a time via Zoom to go over the Project and discuss any design considerations you might have as the Project moves forward.

Please let us know your availability over the next week or two!

Many thanks,
Laura

Laura Krause
Lead Scientist

BETA Group, Inc.
844.800.2382 x7113

We're Hiring!

Be GREEN, keep it on the SCREEN

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APPENDIX L

- **Project Specifications**

DOCUMENT A00801

SPECIAL PROVISIONS

DIGHTON

Replacement of Bridge No D-08-002
Pleasant Street over Muddy Cove Brook

NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION

The northern long-eared bat (*Myotis septentrionalis*; NLEB) and tricolored bat (*Perimyotis subflavus*; TCB) are listed as federally endangered or proposed endangered, respectfully, under the Endangered Species Act (ESA). The U.S. Fish and Wildlife Service (USFWS) developed this guidance to address ESA compliance and promote conservation of NLEB and TCB. This project has been consulted with the USFWS through the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and Federal Transit Administration (FTA) Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. and generated a May Affect, Not Likely to Adversely Affect (NLAA) determination (see **USFWS NLAA**). Subsequently, the project has completed Section 7 consultation under the ESA.

In advance of the uplisting of the TCB to endangered under the ESA, the following Avoidance and Minimization Measures (AMMs) must be strictly adhered to in order to protect NLEB and TCB and to be in compliance with the ESA. Contact MassDOT Environmental Services - Wildlife Unit Supervisor for questions about project limits, restrictions, or conservation measures.

General AMM

- The Contractor shall ensure all personnel working in on the project site are aware of all environmental commitments related to NLEB and TCB, including all applicable AMMs. NLEB and TCB information (https://www.fws.gov/midwest/endangered/mammals/nleb/ and https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus) shall be made available to all personnel.
- On 6/5/2024, MassDOT Highway Division Environmental Services conducted a northern long-eared bat summer presence/absence survey, in accordance with the 2024 survey guidelines. The survey did not confirm the presence of NLEB and/or TCB. If work is proposed by the Contractor past 6/5/2029, additional review is required by the MassDOT Highway Division's Environmental Services Section, and additional review and restrictions may be required by the USFWS.

Tree Removal AMMs

- *If additional cutting is proposed by the Contractor that is outside the scope of this contract, additional review is required by the MassDOT Highway Division's Environmental Services Section, and additional review and restrictions may be required by the USFWS.*

Bridge AMM

- On 5/21/2024, MassDOT Highway Division Environmental Services conducted a northern long-eared bat bridge/structure bat assessment, in accordance with the USFWS guidelines. The assessment did not find presence of, or evidence of use by bats, and as stated within the

guidelines, the assessment is valid for two years. If bridge work is not complete before 5/21/2026, assessment of the bridge for the presence of, or evidence of use by, bats shall be completed by the MassDOT Wildlife Unit prior to continuing bridge work. The Contractor shall notify the MassDOT Wildlife Unit no later than fourteen (14) days prior to 5/21/2026 to provide adequate time for inspection. If bats are found to be present, or, if there is evidence of bat usage, work at the bridge shall not commence until after the MassDOT Wildlife Unit has completed coordination with the US Fish and Wildlife Service to determine the appropriate follow up or mitigation actions.

ITEM 102.3 HERBICIDE TREATMENT OF INVASIVE PLANTS HOUR

This work must be performed by persons who meet the qualifications below and are approved by the Landscape Design Section.

Work under this item consists of herbicide treatment of invasive plants currently existing within the project limits and as directed. An Invasive Plant Management Strategy (IPMS) shall be submitted to the Engineer for review and approval and the IPMS shall be implemented on-site. The IPMS shall be written and submitted per Item 102.33 Invasive Plant Management Strategy and shall be measured and paid for under that Item.

Work under this item shall be coordinated with work and schedule for Selective Clearing, Clearing and Grubbing, Mowing, Tree Removal, Planting, and Wetland Mitigation items.

Payment is per hour on-site and shall be compensation for a minimum crew of 2 licensed applicators, 2 back-pack sprayers and mist-blowers, a properly equipped spray truck with spray hoses, and a tank with sufficient capacity for a full day of work. If there is only one applicator, hourly payment shall be adjusted to 50 percent of the unit price.

Date and time stamped photos indicating start and stop time of work must be submitted if requested.

This item is not intended for manual removal of plants.

Management of plants determined to have been introduced to the site via imported loam, compost, mulch, plants, equipment, or other construction activities will be the Contractor's responsibility and at the Contractor's expense.

Herbicide shall be applied during daytime hours only.

Measures to prevent the introduction of invasive plant species to the site and to address introduction due to construction-related activities shall be covered under the Standard Specifications, Division I - Subsections 7.01(D) Plant Pest Control and 7.13 Protection and Restoration of Property as amended in these Special Provisions.

Plant species targeted for management under this item shall be as determined in the field per the site walk and as specified in the IPMS.

The definition of invasive plant species shall be as described by Massachusetts Invasive Plant Advisory Group (MIPAG): "non-native species that have spread into native or minimally managed plant systems in Massachusetts, causing economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems."

Control of invasive plants shall begin immediately with the initiation of construction activities and prior to any clearing or site disturbance. Treatment areas shall include stockpile locations and may, upon approval of the Engineer, extend outside the project limit. Treatment shall be done each consecutive year for the duration of the contract unless specified otherwise in the IMPS or unless directed otherwise by the MassDOT invasive species contact. Work shall be done during the growing season from May – October unless otherwise specified in the IPMS.

Areas identified for vegetation control measures shall be as shown on the plans and as determined in the field by the Engineer and a MassDOT Landscape Architect. Contact at MassDOT Landscape

ITEM 102.3 (CONTINUED)

Design Section may be contacted at: TBD@dot.state.ma.us. (LD Project Reviewer email TBD)

QUALIFICATIONS

The applicators shall submit and meet the qualifications outlined below. A list of contractors specializing in invasive management and approved by MassDOT Landscape Design Section is available on the following website: https://www.mass.gov/lists/landscape-design-and-roadside-maintenance under Invasive Plant Management.

REQUIREMENTS

1. Company must provide proof of qualifications by providing the following:
   a. Narrative describing company, its expertise and experience with invasive plant control.
   b. Demonstrate experience with herbicide treatment as part of restorations and in sensitive areas.
   c. Describe company's technical qualifications and past performance.

2. Company must meet licensing requirements:
   a. All crew applicators must have a Massachusetts Commercial Applicator License (CORE).At least one or more applicator must have a ROW certification, if required for work.
   b. Company must provide name(s) of applicator(s) and Applicator License/Certification number for all contractor crew leaders working on the project.
   c. Company must provide documentation of any warnings, penalties or fines received in the last three (3) years.

3. Company must provide proof of experience with invasive plant control and include following:
   a. At least five (5) references from prior invasive plant control work completed in last five (5) years. Provide contact information including address, phone number and email.
   b. Provide a summary of each of these projects including nature of the problem, specific invasive vegetation treated, dates and period of treatment, methodologies used, and summary of success or not in terms of meeting performance objectives. Include summary of equipment used.
   c. Photo documentation of these projects.
   d. GPS coordinates of project locations, if available.

4. Crew leader must have expertise with invasive plant control and provide the following:
   a. Have held Core license for at least five (5) years.
   b. Resume listing five (5) or more years of experience applying pesticides with the company or with another company specializing in vegetation management.

ITEM 102.3 (CONTINUED)

SUBMITTALS

No work shall begin without approval of the submittals.

Submittals include the following items:

Invasive Plant Management Strategy (IPMS)

At least thirty (30) days prior to proposed treatment the IPMS shall be submitted for approval by the Engineer and MassDOT Landscape Architect. All chemicals, methods and work done under this item shall be consistent with the IPMS. The IPMS shall be as described under Item 102.33.

Herbicide Use Report

Within two (2) weeks after each application, the Contractor shall provide to the Engineer and the MassDOT Landscape Architect a completed and signed MassDOT Herbicide Use Report.

Photo Documentation

Digital photos with date and time of herbicide application work, showing start time and completion time, are required and must be submitted for measurement of payment upon request.

MATERIALS

All proposed herbicides shall be as approved in the IPMS. Herbicides shall be labeled for the method of treatment and shall meet all federal, state and local regulation requirements. Application rates will depend on herbicide proposed and shall be per the manufacturer's label for specific application.

METHODS

All methods used shall be as approved in the IPMS which shall be determined during the Initial Site Walk as described under Item 102.33 Invasive Plant Management Strategy.

The Contractor shall be responsible for marking delineated areas and plants to be preserved, removed, or otherwise treated. Fencing or other materials needed for marking and delineating protected areas shall be incidental to this item.

The Contractor shall notify the Engineer a minimum of 3 days prior to date of expected herbicide application. Applicators shall notify the Engineer upon arriving on-site and upon leaving the site.

Herbicide Applications

All herbicide application shall conform to Massachusetts Pesticide Laws and Regulations per the Massachusetts Department of Agricultural Resources (MDAR) Pesticide Bureau.

Mixing, applying and/or disposing of herbicides shall always be in accordance with instructions on their labels and all applicable federal, state, and local regulations. Mixing shall not occur within sensitive areas, wetlands, or buffer zones.

Contractor shall not spray 2 hours prior to precipitation, during rain, or during windy conditions. The Contractor shall be responsible for monitoring weather conditions and adjusting the work schedule as appropriate for the herbicide and application method to be used.

ITEM 102.3 (CONTINUED)

Targeted vegetation shall be identified and marked prior to treatment. Plants treated by foliar spray, injection or glove application or other methods that leave standing vegetation, as opposed to cut-stump application, shall remain clearly marked for identification through the contract period.

Desirable vegetation shall be protected from both spray and other physical damage.

Contractor is responsible for any damage to vegetation not designated for removal or treatment. Vegetation damaged shall be restored. Cost of replacement plants and/or restoration shall be borne by the Contractor.

Contractor shall ensure that the public does not enter a work area while herbicide application or spraying is underway.

Disposal Of Invasive Plant Material

All material to be cleared shall become the property of the Contractor. The satisfactory disposal of all cleared plant material (seeds, roots, woody vegetation, associated soils, etc.) shall be the Contractor's responsibility.

The Contractor shall take measures to prevent viable plant material from leading to further infestations (seeds, roots, woody material, etc.) while stockpiled, in transit, or at final disposal locations. All precautions shall be taken to avoid contamination of natural landscapes with invasive plants or invasive plant material.

Chipping, shredding, or on-site burning of plant material must be approved by the Engineer and included in the IMPS.

For plant material taken to an incinerating facility per the IPMS, a receipt from that facility shall be submitted to the Engineer as proof of disposal.

Where feasible, it is preferable to dispose of plants on-site or to bury them on-site with on-going monitoring for re-sprouting. Disposal locations and methods must be approved and included in the IPMS. Site work such as grading and seeding to stabilize and restore disposal area shall be incidental to this item.

The Contractor shall be responsible for treating or otherwise managing areas of re-growth due to improper disposal. Treatment shall be at the Contractor's expense.

Follow-Up Treatment

Plants and areas shall be re-treated as necessary and as appropriate to the time of year. Treatment shall be for the duration of the contract and per the IPMS.

MEASURE OF SUCCESS

The expectation is a minimum of 85-95 percent control achieved after the first treatment, depending on plants targeted and extent of population, and based on the expectations laid out in the IPMS. The expectation for the contract duration is 95-100% eradication by the end of the treatment period, unless otherwise specified in the IPMS.

METHOD OF MEASUREMENT

Item 102.3 will be measured for payment by the Hour of verified crew time spent on the project

ITEM 102.3 (CONTINUED)

doing herbicide application as and where specified herein and in the IPMS. A crew shall be defined as a minimum of two licensed applicators each equipped with (at minimum) back-pack sprayer and mist blower. The crew shall also have a properly equipped spray truck with hoses and a tank with sufficient capacity for a full day of work.

BASIS OF PAYMENT

Item 102.3 will be paid at the contract unit price per Hour, which price shall include all labor, materials, equipment, tools, and all incidentals required to complete the work.

Payment will be based upon verified time spent on the project doing herbicide application as and where specified in the IPMS and upon receipt and approval of submittals. Payment will not include travel time to and from the Contractor's place of business and nor time for investigative field trips.

If there is only one applicator, hourly payment shall be adjusted to 50 percent of the unit price.

The Invasive Plant Management Strategy will be paid for under Item 102.33.

ITEM 102.33 INVASIVE PLANT MANAGEMENT STRATEGY HOUR

This item consists of providing an Invasive Plant Management Strategy (IPMS) for the control of invasive plants currently existing on the project site and/or as directed and shall be coordinated with Item 102.3 Herbicide Treatment of Invasive Plants. Unless otherwise approved, the IPMS shall be submitted in the form of the MassDOT Invasive Plant Management Strategy Report Form.

The IPMS shall be submitted for review and approval by the MassDOT Landscape Design Section or their representative, and the IPMS shall be implemented on-site.

The Invasive Plant Management Strategy Report Form is available online at https://www.mass.gov/lists/landscape-design-and-roadside-maintenance under Invasive Plant Management.

Herbicide treatment for invasive plants shall be as described under Item 102.3 Herbicide Treatment of Invasive Plants and shall be compensated per that Item.

Work under this item shall be coordinated with work and schedule for Selective Clearing, Clearing and Grubbing, Mowing, Tree Removal, Planting, and Wetland Mitigation as relevant to the project.

Individual attending the site walk and determining the Invasive Plant Management Strategy must demonstrate expertise with vegetation management and invasive plant control and submit qualifications as described below.

QUALIFICATIONS

Individual shall be from the same company as that providing services for Item 102.3 Herbicide Treatment of Invasive Plants and shall submit the following, if not submitted under Item 102.3:

- Submit copy of current Core license.
- Submit a resume listing five (5) or more years of experience managing invasive plants with a company specializing in vegetation management.

ITEM 102.33 (CONTINUED)

- References shall be submitted if requested.

SUBMITTALS

Task Summary & Reports

For measurement of payment, the contractor shall submit the total sum and a breakdown of hours for the tasks performed. At a minimum, the tasks shall include the Initial Site Walk, submittal of an approved IPMS, and if requested to accommodate project or site changes, a Follow-up Site Inspection and accompanying IPMS Amendment.

Interim Site Monitoring Reports and/or a Final Report shall be submitted if requested by the MassDOT Landscape Design contact. The MassDOT Landscape Design contact must be notified to attend the site inspection walk when an Interim or Final Report has been requested.

Invasive Plant Management Strategy (IPMS)

At least thirty (30) days prior to construction activities and/or any proposed treatment, the contractor shall submit the IPMS for approval by the Engineer and MassDOT Landscape Architect. All chemicals and methods proposed shall be consistent with applicable Massachusetts Wetlands Protection Act Order of Conditions.

The IPMS shall be completed in coordination with the Prime Contractor and the Engineer and shall include the following as appropriate and applicable to the project and to the IPMS Report Form questions and Guidance:

I. Project Information
   a. Company writing the IPMS and performing the herbicide application.
   b. Date of site walk
   c. Attendees at site walk
   d. Expected end date of contract and expected last treatment (month/season)

II. Brief Description of Conditions
   a. Provide a free-hand sketch on construction plans or aerial image showing species, location, and as relevant, show or note extent of population as relevant to Strategy (i.e., population extends off ROW preventing eradication, small population and eradication deemed feasible within contract schedule, etc.).

III. Coordination with Roadway Contractor regarding other work
   a. Tree Work: Note coordination to be implemented with tree removal, clearing, and clearing and grubbing as applicable to the project.
   b. Wetland Mitigation - Include management proposed for wetland mitigation areas in the IPMS, if and as required.
   c. Planting: If there will be planting in areas proposed for treatment, propose treatment and schedule to avoid herbicide damage to plants.
   d. Mowing: If coordination is required with state mowers, note need in IPMS.

IV. Soil Management
   a. Provide specifics on how soil with invasive plant roots (in particular) or seeds will be handled (i.e., separate stockpiles, plant material will be buried on-site, re-used on-site, disposed off-site and if so, where?).

ITEM 102.33 (CONTINUED)

b. Show stockpile locations on plan and include treatment schedule.
c. Note measures that will be implemented to avoid spread through equipment, including how and where equipment will be cleaned.

V. Invasive Plant Treatment & Management
a. Proposed chemical and methods of treatment for each species or area.
b. Time of treatment based on target plant species.
c. Submit product label including application methods and rates (entire MSDS information need not be submitted if available online).
d. Proposed performance metrics or measure of treatment success if different from that specified under Item 102.3.
e. Method for disposing invasive plant material. This includes material that may result in spread (i.e., seeds, roots) and material that has been treated and/or is not viable (foliage, dead wood, etc.). Methods may include grinding in place, stockpiling and treating, and incinerating offsite.
f. Expected follow-up treatment for duration of contract.

VI. Monitoring Schedule if requested by MassDOT.

Note: The IPMS is critical for identifying pre-construction conditions as well as strategies for minimizing import or spread of invasive plants. Failure to provide an approved IPMS may jeopardize this item, in which case, the contractor will be responsible for management of invasive plants found on-site at no cost to the contract.

Photo Documentation

Digital photos of site conditions, typical species, and extent of infestation must be provided with the IPMS and with any follow-up monitoring or reporting. Photos of follow-up monitoring and reporting must be date and time stamped for acceptance.

METHODS

Initial Site Walk

Prior to any construction activities and soil disturbance, the Contractor shall walk the site with the Engineer and the MassDOT Landscape Architect to determine the IPMS. During the site walk the Contractor shall identify limits of work and, as necessary, mark locations of areas designated for treatment and individual plants targeted for treatment or removal. The Contractor shall be responsible for marking delineated areas and plants to be preserved, removed, or otherwise treated. Fencing or other materials needed for marking and delineating protected areas shall be incidental to this item.

IPMS Follow-up Amendment

The IPMS may be amended to address additional concerns or adjust to conditions if required by the MassDOT Landscape Architect. The amended IPMS shall be submitted to the Engineer and MassDOT Landscape Architect for approval at least fourteen (14) days prior to any proposed treatment.

ITEM 102.33 (CONTINUED)

Interim Site Monitoring Inspection Reports

If required by the MassDOT Landscape Architect and Engineer, Interim Site Monitoring and an accompanying report shall be conducted. Interim Reports must include time and date stamped photos showing treated locations and species.

Final Inspection

A final inspection and report documenting the status of the invasive control may be required for regulatory purposes or for instances where control will be continued by others. The report shall include photo documentation of pre-construction (existing) and post-treatment conditions, notations on a plan or aerial image of area treated, summary of treatment performed, and control achieved. Final reports submittal must include time and date stamped photos.

METHOD OF MEASUREMENT

Item 102.33 will be measured for payment by the Hour. The basis for measurement shall be per the completion of tasks as approved under the Task Summary submittal and acceptance of submittals and photos described above.

BASIS OF PAYMENT

Item 102.33 will be paid at the contract unit price per Hour, which price shall include all labor, materials, equipment, tools, and all incidentals required to complete the work. Payment shall not include travel time to and from the Contractor's place of business.

ITEM 102.511 TREE PROTECTION – ARMORING & PRUNING EACH

The work under this item shall conform to the relevant provisions of Subsection 771 of the Standard Specifications and the following:

Tree protection – armoring and pruning shall be used for instances where construction activity (the use of heavy equipment), comes within proximity to potentially damage tree trunk(s) or limbs.

The work shall include the furnishing and installing of temporary tree trunk protection, minor limb pruning, or removal of lower tree limbs to prevent injury to the tree from construction equipment and activities; as shown on the Drawings; and/or as required by the Engineer.

REFERENCES

If requested, the Contractor shall provide to the Engineer one copy of the latest edition of the American National Standards Institute (ANSI) A300 Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance: Part 1-Pruning and Part 5-Construction Management Standard. Provision of reference shall be incidental to this item.

MATERIALS

Trunk armoring shall be such that it prevents damage to the trunk from construction equipment. Material used for trunk armoring or mounting shall be such that installation and removal shall not damage the trunk.

Acceptable trunk armoring materials shall include two by four (2x4) wood cladding, mounted with

ITEM 102.511 (CONTINUED)

wire or metal strapping, or when duration of construction activities is less than three months,

slotted corrugated plastic pipe, mounted with duct tape. Eight (8) once untreated burlap shall be used to wrap the tree trunk prior to installation of cladding.

Alternative armoring methods or materials may be acceptable if approved by the Engineer.

The height of tree trunk cladding shall be measured from the base of the tree (including root flare) to the bottom of the first branch, or to a height of eight (8) feet, or as may be required by the Engineer.

METHODS OF WORK

Prior to construction activities, the Engineer, the Contractor, the Town Tree Warden, and the Arborist (if item is included in the contract), shall review trees noted on the plans to be protected. Final decision and selection of trees to be armored and/or pruned shall be per the Engineer.

Care shall be taken to avoid damage to the bark during installation and removal of armoring. Trunk armoring shall be maintained such that it is effective for as long as required or replaced when materials are found to be damaged or ineffective, as determined by the Engineer. Replacement, if required, shall be incidental to the work. Armoring shall be removed immediately upon completion of work activities adjacent to the protected tree(s).

Pruning of limbs shall conform to the techniques and standards of the most recent ANSI A300 standards.

DAMAGES OR LOSS

If trees designated for protection under this item are damaged, including root damage from unapproved trespassing onto the root zone, the Contractor shall, at his own expense, secure the services of an Arborist, described in Item 102.55. The Arborist shall be approved by MassDOT.

If, based on the recommendation of the Arborist, the Engineer determines that damages can be remedied by corrective measures, such as repairing trunk or limb injury; soil compaction remediation; pruning; soil injection fertilization; and/or watering; the damage shall be repaired as soon as possible, within the appropriate season for such work and according to industry standards.

If, based on the recommendation of the Arborist, the Engineer determines that damages are irreparable, or that the damages are such that the tree is sufficiently compromised to pose a future safety hazard, the tree shall be removed. Tree removal shall include cleanup of all wood, grinding of the stump to a depth sufficient to plant a replacement tree or plant, removal of all chips from the stump site, and filling the resulting hole with topsoil. Such tree removal(s), grinding, debris removal, and topsoil filling, shall be at the Contractor's expense.

Tree removal from improper or inadequate tree protection shall result in the Engineer assessing the Contractor monetary damages consistent with industry standards for assessed value and/or replacement.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 102.511 will be measured and paid at the contract unit price per EACH tree to be armored and pruned. This will include full compensation for all labor, equipment, materials, and incidentals

ITEM 102.511 (CONTINUED)

for the satisfactory completion of the work and the subsequent removal and satisfactory disposal of the protective materials upon completion of the contract or as required by the Engineer.

Payment under this item will be scheduled as follows:

- 40% of value shall be paid upon installation of trunk armoring and completion of pruning work, if required.
- 60% shall be paid at the end of construction operations that would damage the tree and after protection materials have been removed and properly disposed of by the Contractor. In the event of repairable damages, payment shall be made after the completion of remediation measures.

No separate payment will be made for costs of remedial actions, including Arborist services, tree removal, but all costs in connection therewith shall be included in the Contract unit price bid.

Tree damages assessed, due to lack of or improper tree and plant protective measures being taken, shall be deducted from the contract price of the work.

ITEM 115.1 DEMOLITION OF BRIDGE NO. D-08-002 LUMP SUM

The work under this item shall conform to the relevant provisions of Subsections 112 and 140 of the Standard Specifications and the following:

The work includes furnishing all labor, material and equipment necessary to perform demolition of the existing bridge as shown on the Plans or as directed by the Engineer. Except as specified, all material and debris shall become the property of the Contractor, and shall be recycled, reused or disposed of in accordance with all applicable local, state and federal requirements.

The Contractor shall demolish, remove, and dispose of the following major items of the existing bridge as shown on the plans, including but not limited to: concrete bridge rail; wearing surface; concrete deck; concrete superstructure; concrete abutments; wingwalls; concrete pile caps; removal of exsiting piles; and other miscellaneous items. The existing piles may be either beremoved and disposed, or cut below the crushed stone limits and left in place, as required for the installation of new piles. Any removal or modification to the existing piles shall be paid for under this item.

The relocation work for the utility poles and overhead wires shall be completed prior to any demolition. Prior to phase 1 demolition, a new water gate valve and pipe shall be installed at the south approach isolate water over the bridge, as shown on the Plans. Prior to phase 2 demolition, the exist. gas line shall be shut off and relocated under the new superstructure on the east side, as shown on the Plans.

All demolition shall be done in the dry. Control of Water will be paid for separately under Item 991.1 CONTROL OF WATER – STRUCTURE NO. D-08-002. Demolition shall not commence until all the required environmental measures are in place and approved by the Engineer, including sediment control barriers and control of water devices.

The Contractor shall be responsible for protecting from damage any utilities and drain pipes within the limits of the work area, as well as protection of the riverbed.

The Owner makes no assurances regarding the presented conditions, dimensions, and materials of

ITEM 115.1 (CONTINUED)

the existing structures as shown on the Plans. The Contractor shall verify all existing conditions and construction features of the structure to be demolished, as necessary, for the proper planning and completion of the work. The Contractor shall base its bid on his/her own findings. No increase will be made to the bid prices due to the nature of the materials involved in the demolition. All costs for permits, dump fees, taxes, etcetera, shall be included in the bid price of the demolition items. Removal of contaminated material shall be paid under Item 188.11-181.14.

The Contractor shall be solely responsible for maintaining the stability of the existing structure at all times during demolition and construction operations. The Contractor shall prepare and submit a plan indicating the proposed demolition procedures and methods to be used including equipment, tools, devices, bracing, excavator capacity and location, schedule of operations, methods of utility protection, traffic management procedures, etc., to the Engineer for approval. The plan shall be in accordance with the requirements of Section 960.61 of the Standard Specifications. The submittal shall include drawings and calculations of all loads and selection of lifting devices.

The contractor shall certify that all existing elements are suitably braced and supported throughout the demolition process. The Contractor's demolition method shall take into consideration any utilities on or near the bridge. Work under this item may not commence until the Engineer has given written approval.

The Contractor's demolition operations shall not damage any components of the structures to be temporarily, or permanently, retained. Any damage to these components, as a result, of Contractor's operations shall be repaired, or replaced in-kind, as directed by the Engineer and no additional compensation shall be made.

At least 30 days prior to the start of demolition work, notify the Engineer and each Utility having services connection to, or immediately adjacent to, or overhead of, the structure to be demolished. The Contractor shall exercise caution in the areas of any existing utilities to avoid damage to such.

BASIS OF PAYMENT

The Contractor will make his own investigation of the structure to be demolished including the materials that are part of or may be stored in the structure. No increase will be made to the bid price due to the nature of the materials involved in the demolition. All costs for permits, dump fees, shall be included in the bid price of the demolition item.

The work under this Item 115.1 shall be paid for at the contract Lump Sum unit price, which price constitutes full payment for all labor, transportation, equipment, tools, disposal fees, and all incidental costs required to complete the work as specified above, as shown on the Contract Plans and/or as directed by the Engineer. Miscellaneous removals and disposals that are not specifically listed for payment under another item shall be deemed included under this Item.

ITEM 151.9 STREAMBED RESTORATION LUMP SUM

DESCRIPTION

This work shall consist of restoring the river bed where disturbance takes place in the project area within the limits of work. Work will primarily include removing, stockpiling, and replacing river bed material at the subject crossing structure. The streambed restoration shall replicate the existing natural channel bed outside the work area in terms of material, roughness, shape, profile, and appearance. The ultimate product will, to the extent possible, replicate the function and appearance of the natural stream channel, as illustrated in the accompanying photographs.



The Contractor shall coordinate with his/her sub-contractors to ensure all required equipment is available on-site to complete the work in this manner. The streambed restoration is required to comply with environmental permits issued for the project.

MassDOT Environmental Services will provide a Fluvial Geomorphologist (Geomorphologist) to provide review of the final design and on-site assistance during streambed restoration construction to ensure the restoration is constructed as required by these Special Provisions and in accordance with permit requirements.

At least 30 days prior to the commencement of construction, the Contractor shall coordinate with David Paulson (MassDOT Wildlife Unit Supervisor, (508) 389-6366 / david.j.paulson@state.ma.us) to set up an initial (virtual or inperson) meeting with MassDOT's Geomorphologist, Contractor, and Resident Engineer. At this meeting, the Geomorphologist will provide an overview of the restoration work. The Contractor should be prepared to discuss the anticipated means, methods, and schedule.

Process Approval:

In lieu of a mockup, the Contractor shall schedule an additional onsite meeting to discuss the streambed restoration with the Geomorphologist and respective parties from MassDOT. The Geomorphologist shall be onsite during initial streambed restoration. The Contractor shall provide the Geomorphologist adequate access to observe, direct, and inspect the channel restoration work

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throughout the duration of the removal, stockpile, and reinstallation of the existing streambed material.

Material

The top 24 inches of streambed material excavated from the existing streambed shall be removed and stockpiled to facilitiate reinstallation and replication of the natural streambed. The excavated streambed material below the top 2 feet shall be stockpiled and reused to fill the voids in the proposed riprap placed below the top streambed restoration layer.

In the event that the excavated material is not suitable or there is not enough available suitable material, additional streambed restoration material shall be locally sourced that matches the composition of the existing native river bed.

Approximate Stream Bed Surface Material Size Distribution

Particle	**Percent (%) Composition**
Gravel	10
Sand	90

The streambed material shall be approved by the Resident Engineer and Geomorphologist prior to use.

Construction

The streambed material shall be installed within the area impacted along the abutments due to installation of the cofferdams to an average thickness of 24 inches with variations in thickness as necessary to replicate existing channel conditions. Streambed restoration will occur along both bridge abutments, within the dewatered work areas. The streambed restoration material shall blend into the undisturbed streambed in the center of the channel.

The initial placement of streambed material shall fill / choke the voids in the underlying riprap. Fill voids by shaking stone with the teeth of an excavator bucket, hand tamping with metal tamping rods, and by spraying water to settle fines between large stones. Plate compactors shall not be used. The purpose of filling the voids is to prevent subsurface flow where surface water disappears into large voids between the stone fill below the channel bed surface during low flow conditions. The final streambed shape and appearance shall be finalized in the field as directed by the Geomorphologist.

Reinstallation of the stockpiled streambed material shall be placed on top of the riprap to restore streambed habitat and fish passage. The streambed materials shall be installed during normal low water conditions behind cofferdams in accordance with the environmental permits.

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Completion

Once all material has been placed in the stream channel and approved by the Geomorphologist and Resident Engineer, the Contractor shall remove the cofferdams in such a way as to slowly wet the stream to minimize the initial sediment pulse. Every attempt shall be made to minimize the downstream movement of sediment.

The final streambed shall maintain the general configuration of the existing streambed bedform and there shall be minimal subsurface flow upon final inspection by the Resident Engineer and Geomorphologist. The project must be passable by fish and other aquatic organims following construction. Terrestrial wildlife must be able to walk along the river bank.

The streambed restoration to be measured for payment will be the complete and accepted work for restoration of the streambed within the limits shown on the Plans as approved by the Resident Engineer and Geomorphologist.

BASIS OF PAYMENT

The accepted streambed restoration will be paid for on a lump sum basis. Payment will be full compensation for excavating, stockpiling, transporting, and placing the material specified and for furnishing all labor, tools, equipment, testing, and incidentals necessary to complete the work.

The Geomorphologist will be provided by MassDOT at no cost to the Contractor.

ITEM 180.01 ENVIRONMENTAL HEALTH AND SAFETY PROGRAM LUMP SUM

The work shall consist of ensuring the health and safety of the Contractor's employees and subcontracting personnel, the Engineer, their representatives, the environment, and public welfare from any on-site chemical contamination present in air, soil, water and sediment.

The Contractor shall prepare and implement a site-specific Environmental Health and Safety Plan (EHASP) which has been approved and stamped by a Certified Industrial Hygienist (CIH) and includes the preparer's name and work experience. The EHASP shall include appropriate components required by OSHA Standard 29 CFR 1910.120(b) and the Massachusetts Contingency plan (MCP) 310 CMR 40.0018 and must comply with all applicable state and federal laws, regulations, standards and guidelines, and provide a degree of protection and training appropriate for implementation on the project. The EHASP shall be a dynamic document with provision for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The EHASP shall be developed and implemented independently from the standard construction HASP required to work on all MassDOT construction projects.

Health and safety procedures provided by the Contractor shall comply with all the appropriate regulations that address employee working conditions, including but not limited to standards established by OSHA and National Institute for Occupational Safety and Health (NIOSH). Equipment used for the purpose of health and safety shall be approved by and meet pertinent standards and specifications of the appropriate regulatory agencies.

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A copy of the most up-to-date version of the EHASP shall be maintained on-site at all times by the Contractor. The on-site copy shall contain the signature of the Engineer and each on-site employee of the MassDOT, Contractor, and Subcontractors involved with on-site activities. The employee's signature on the EHASP shall be deemed prima facie evidence that the employee has read and understands the plan. Updated copies of signature sheets shall be submitted to the Engineer.

The EHASP shall specify a Contractor Site Safety and Health Officer responsible for implementation of the EHASP and to oversee all construction activities, including handling, storage, sampling and transport, which require contact with or exposure to potentially hazardous materials.

The level of protection, required to ensure the health and safety of on-site personnel will be stipulated in the EHASP. The Site Safety and Health Officer shall implement the EHASP based on changing site and weather conditions, type of operation or activity, chemical compounds identified on-site, concentration of the chemicals, air monitoring data, physical state of the hazardous materials, potential duration of exposure to hazardous materials, dexterity required to perform work, decontamination procedures, necessary personnel and type of equipment to be utilized.

During implementation of the EHASP, a daily log shall be kept by the Site Safety and Health Officer and a copy shall be provided weekly to the Engineer. This log shall be used to record a description of the weather conditions, levels of personal protection being employed, screening data and any other information relevant to on-site environmental safety conditions. The Site Safety and Health Officer shall sign and date the daily log.

BASIS OF PAYMENT

Preparation and implementation of the Environmental Health and Safety Program, including the monitoring, protection and storage of all contaminated materials, as well as subsequent modifications to the EHASP, will be paid for at the respective Contract Lump Sum Bid Price.

Payment of 50% of the Environmental Health and Safety Program contract price will be made upon the initial acceptance of the EHASP by the Engineer. Payment of the remaining 50% of the Environmental Health and Safety Program contract price will be made upon completion of the work. The bid price shall include preparation and implementation of the EHASP as well as the cost for its enforcement by the Site Safety and Health Officer along with any necessary revisions and updates. The work of implementing the Environmental Health and Safety Program includes work involving, but not limited to, the monitoring, protection, and storage of all contaminated materials.

ITEM 180.03 LICENSED SITE PROFESSIONAL SERVICES HOUR

Within limited areas of the project site, media (i.e. soils, sediments, surface water and/or groundwater) requiring evaluation and/or management under the Massachusetts Contingency Plan (MCP) may be encountered. A Licensed Site Professional (LSP) shall be required to provide the services necessary to comply with the requirements of the MCP. These services may include a site walk, field screening, sampling, analysis and characterization of potentially contaminated media, preparation and implementation of Immediate Response Action (IRA) Plans, Utility-Related Abatement Measure (URAM) and Release Abatement Measure (RAM) Plans, Imminent Hazard Evaluations, status reports, transmittal forms, release notification forms, risk assessments,

completion statements, and related documents required pursuant to the MCP. LSP services shall also be necessary to temporarily move material generated on the project to an off-site storage location.

The name and qualifications of the LSP and all environmental technicians to be assigned to the project shall be submitted to the Engineer for approval at least four weeks prior to initial site activities. The LSP shall have a current, valid license issued by the Massachusetts Board of Registration of Hazardous Waste Site Cleanup Professionals. The LSP shall have significant experience in the oversight of MCP activities at active construction sites. Qualification packages for the LSP and each technician shall include a resume, all recent work assignments with responsibilities identified (previous 5 years), and applicable training and certifications. A list of all Notices of Noncompliance, Notice of Audit Findings and Enforcement Orders issued by the Massachusetts Department of Environmental Protection (DEP) shall be submitted for all work assignments listed for the LSP and environmental technicians. Upon approval of the LSP Qualifications, the LSP will be designated as the LSP of Record unless MassDOT designates in writing otherwise. The LSP of Record will serve as the primary point of contact for all hazardous material matters on the project.

The LSP shall evaluate soil and/or sediment with discoloration, odor, elevated field screening results, presence of petroleum liquid or sheen on the groundwater surface, or any abnormal gas or materials in the ground which are known or suspected to be oil or hazardous materials. Excavated soil and sediment which is suspected of petroleum contamination shall be field screened using the jar headspace procedures according to established DEP Guidance. All field screening equipment must be pre-approved by the Engineer. The LSP shall ensure proper on-site calibration of all field screening instrumentation.

The Engineer shall be contacted immediately when observations or any field screening results verify contamination requiring further analysis, and/or enhanced management of suspect media. Any enhanced management of contaminated soil to ensure proper stockpiling and storage is incidental to the LSP Services item. The LSP shall evaluate the need for confirmatory sampling prior to backfill in areas where contaminated material has been excavated and disposed off-site for compliance with applicable regulatory requirements. The Engineer shall approve the locations of the testing sites prior to the sampling.

Contaminated media shall be handled in accordance with all applicable state and federal statutes,

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regulations, and policies. The LSP shall adequately evaluate contaminated media for compliance with the requirements of the MCP and Department Policies.

The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations and both shall be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations. The LSP shall maintain written records in a clear and concise tabular format which tracks the excavation, stockpiling, analysis and reuse/disposal of all known/suspect contaminated media. These records shall be up-to-date and submitted to the Engineer on a bi-weekly basis. The LSP shall review and summarize the laboratory data from any analyses performed on contaminated media in a tabular format and compare the results to applicable reporting thresholds. A report shall be delivered to the Engineer outlining the material sampling methods, laboratory analysis results, evaluation of applicable regulatory exemptions, reporting obligations, and proposed course of action. The laboratory report together with Chain of Custody forms for all analytical results shall be submitted to the Engineer within 14 days after completion of such analyses.

The LSP and Contractor shall be held responsible for the submission of all MCP-related documents to the Engineer at least 14 days in advance of any timeframe specified in the MCP and for the timely submission of data and tracking information as noted within this Item. All documents prepared under this Item must be reviewed and signed by the approved LSP. The Contractor and LSP shall be responsible for all fines, penalties and enforcement requirements imposed by applicable regulatory agencies for failure to meet regulatory and contract timeframes. No compensation will be provided for such fines, penalties and enforcement actions.

The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations, and shall both be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations.

If the Contractor causes a release of OHM, the Contractor shall be responsible for assessing and remediating the release in accordance with all pertinent State and Federal regulations, including securing the services of a LSP, at his own expense.

The LSP shall coordinate all activities involving both MassDOT and the DEP through the Engineer. Any notification of release shall be approved by the Department before submittal to the DEP, except if an imminent hazard condition exists as defined in 309 CMR 4.03(4)(b).

Laboratory Testing in Support of LSP Services

Laboratory testing provides for analytical testing in support of LSP services related to maintaining MCP compliance, such as delineating the extent and type of contamination present. Sampling and testing for disposal purposes are not included and are incidental to Items 181.11-181.14.

In order to maintain compliance with the MCP and Department Policies or other regulatory requirements, the LSP shall request approval from the Engineer to obtain samples from various locations and depths within the project area and to perform laboratory analyses on those samples. No sampling shall be conducted without prior approval from the Engineer. The samples shall be delivered to a DEP-certified laboratory using proper chain-of-custody documentation for analyses which, depending upon site conditions and suspected and/or identified contaminants of concern,

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may include, but are not limited to, metals, polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polycyclic aromatic hydrocarbons (PAHs), extractable petroleum hydrocarbons (EPHs) and volatile petroleum hydrocarbons (VPHs). Subsequent testing, depending upon initial results, may be required for Toxicity Characteristic Leaching Procedure (TCLP) analyses (EPA Method 1311) for metals.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

LSP Services for work under this item will be measured per person, per hour of service provided by LSP, Environmental Technicians and other approved personnel. Travel time shall not be included in the billable hours.

The quantity and type of laboratory tests must be approved by the Engineer beforehand. The contractor will be reimbursed upon satisfactory written evidence of payment. The contractor may be required to obtain cost estimates from three DEP certified laboratories for the Engineer to choose the service provider.

LSP Services will be paid at the Contractor bid price for each hour, or fraction thereof, spent to perform the work as described above. The bid price shall be a blended rate that includes the cost of the LSP, environmental technicians and other personnel, the performance of all work tasks and field screening, including required equipment, materials and instrumentation, and production of all documentation described above. All requests for payment must be accompanied by the following information: the names of the personnel associated with the work charged under LSP Services, dates and hours worked, work conducted, including, where appropriate, locations as identified on the construction plans, and a copy of the field diary for the dates submitted.

Laboratory Testing will be reimbursed upon receipt of paid invoices for testing approved by the Engineer.

This item is for LSP work for compliance with the MCP and Department Policies. LSP hours and any laboratory testing related to off-site disposal of excess soil and sediment is incidental to Items 181.11-181.14 (including, but not limited to, disposal characterization, disposal package preparation, landfill acceptance, shipment paperwork preparation, field screening, and tracking).

ITEM 181.11	**DISPOSAL OF UNREGULATED SOIL**	**TON**
ITEM 181.12	**DISPOSAL OF REGULATED SOIL - IN STATE FACILITY**	**TON**
ITEM 181.13	**DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY**	**TON**
ITEM 181.14	**DISPOSAL OF HAZARDOUS WASTE**	**TON**

The work under these Items shall include the transportation and disposal of contaminated material excavated, or excavated and stockpiled. It shall also include the cost of any additional laboratory analyses required by a particular disposal facility beyond the standard disposal test set.

Excavation of existing subsurface materials may include the excavation of contaminated soils. The Contractor shall be responsible for the proper coordination of characterization, transport and disposal, recycling or reuse of contaminated soils. Disposal, recycling or reuse will be referred to as “disposal” for the purposes of this specification. However, regardless of the use of the term herein, there will be no compensation under these items for reuse within the project limits. The Contractor will be responsible for coordinating the activities necessary for characterization, transport and disposal of contaminated soils. Such coordination will include the Engineer and

ITEM 181.11-181.14 (CONTINUED)

his/her designee overseeing management of contaminated materials. Contaminated soils must be disposed of in a manner appropriate for the soil classification as described below and in accordance with the applicable laws of local, state and federal authorities. The Contractor shall be responsible for identifying disposal facility (ies) licensed to accept the class of contaminated soils to be managed and assure that the facility can accept the anticipated volume of soil contemplated by the project. The Contractor shall be responsible for hiring a Licensed Site Professional (LSP) and all ancillary professional services including laboratories as needed for this work. The Contractor will be responsible for obtaining all permits, approvals, manifests, waste profiles, Bills of Lading, etc. subject to the approval of the Engineer prior to the removal of the contaminated soil from the site. The Contractor and LSP shall prepare and submit to the Engineer for approval all documents required under the Massachusetts Contingency Plan (MCP) and related laws and environmental regulations to conduct characterization, transport, and disposal of contaminated materials.

CLASSES OF CONTAMINATED SOILS

The Contractor and its LSP shall determine if soil excavated or soil to be excavated is unregulated soil or contaminated soil as defined in this section. Such materials shall be given a designation for purposes of reuse or disposal based on the criteria of the MCP. Soils and sediments which are not suitable for reuse will be given a designation for purposes of off-site disposal based on the characterization data and disposal facility license requirements. The Classes of Contaminated Soils are defined as follows:

UNREGULATED SOIL consists of soil, fill and dredged material with measured levels of oil and hazardous material (OHM) contamination at concentrations below the applicable Reportable Concentrations (RCs) presented in the MCP. Unregulated soil consists of material which may be reused (or otherwise disposed) as fill within the Commonwealth of Massachusetts subject to the non-degradation criteria of the MCP (310 CMR 40.0032(3), in a restricted manner, such that they are sent to a location with equal or higher concentrations of similar contaminants. Disposal areas include licensed disposal facilities, approved industrial settings in areas which will be capped or covered with pavement or loamed and seeded, and for purposes of this project should be reused as fill within the project site construction corridor whenever possible. The material cannot be placed in residential and/or environmentally sensitive (e.g. wetlands) areas. Under no circumstances shall contaminated soils be placed in an uncontaminated or less contaminated area (including the area above the groundwater table if this area shows no sign of contamination).

The Contractor shall submit to MassDOT the proposed disposal location for unregulated soils for approval. If such a disposal location is not a licensed disposal facility, the Contractor shall submit to the Engineer analytical data to characterize the disposal area sufficiently to verify that the unregulated material generated within the MassDOT construction project limits is equal to or less than the contaminant levels at the disposal site and meets the non-degradation requirements of the MCP. In addition, the Contractor shall provide written confirmation from the owner of the proposed disposal location that they have been provided with the analytical data for both the materials to be disposed as well as the disposal site characterization and that s/he agrees to accept this material. A Material Shipping Record or Bill of Lading, as appropriate, shall be used to track the off-site disposal of unregulated soil and a copy, signed by the disposal facility or property owner, shall be provided to the Engineer in order to document legal disposal of the unregulated material.

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The cost of on-site disposal of unregulated soil within the project area will be considered incidental to the item of work to which it pertains.

REGULATED SOIL consists of materials containing measurable levels of OHM that are equal to or exceed the applicable Reportable Concentrations for the site as defined by the MCP, 310 CMR 40.0000. Regulated soil which meets the MCP reuse criteria of the applicable soil/groundwater category for this project area may be reused on site provided that it meets the appropriate geotechnical criteria established by the Engineer. Regulated Soil may be reused (as daily or intermediate cover or pre-cap contouring material) or disposed (as buried waste) at lined landfills within the Commonwealth of Massachusetts or at an unlined landfill that is approved by the Massachusetts Department of Environmental Protection (DEP) for accepting such material, in accordance with DEP Policy #COMM-97-001, or at a similar out-of-state facility. It should be noted that soils which exceed the levels and criteria for disposal at in-state landfills, as outlined in COMM-97-001, may be shipped to an in-state landfill, but require approval from the DEP Division of Solid Waste Management and receiving facility. An additional management alternative for this material is recycling into asphalt. Regulated Soils may also be recycled at a DEP approved recycling facility possessing a Class A recycling permit subject to acceptance by the facility and compliance with DEP Policy #BWSC-94-400. Regulated Soil removed from the site for disposal or treatment must be removed via an LSP approved Bill of Lading, Manifest or applicable material tracking form. This type of facility shall be approved/permitted by the State in which it operates to accept the class of contaminated soil in accordance with all applicable local, state and federal regulations.

HAZARDOUS WASTE consists of materials which must be disposed of at a facility permitted and operated in full compliance with Federal Regulation 40 CFR 260-265, Massachusetts Regulation 310 CMR 30.000, Toxic Substances Control Act (TSCA) regulations, or the equivalent regulations of other states, and all other applicable local, state, and federal regulations. All excavated materials classified as hazardous waste shall be disposed of at an out-of-state permitted facility. This facility shall be a RCRA hazardous waste or TSCA facility, or RCRA hazardous waste incinerator. This type of facility shall be approved/permitted by the State in which it operates to accept hazardous waste in accordance with all applicable local, state and federal regulations and shall be permitted to accept all contamination which may be present in the soil excavate. The Contractor shall ensure that, when needed, the facility can accept TSCA waste materials i.e. polychlorinated biphenyls (PCBs). Hazardous waste must be removed from the site for disposal or treatment via an LSP approved Manifest.

MONITORING/SAMPLING/TESTING REQUIREMENTS

The Contractor shall be responsible for monitoring, sampling and testing during and following excavation of contaminated soils to determine the specific class of contaminated material. Monitoring, sampling and testing frequency and techniques should be performed in accordance with Item 180.03 – LSP Services. Additional sampling and analysis may be necessary to meet the requirements of the disposal facility license. The cost of such additional sampling and analysis shall be included in the bid cost for the applicable disposal items. The Contractor shall obtain sufficient information to demonstrate that the contaminated soil meets the disposal criteria set by the receiving facility that will accept the material.

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No excavated material will be permanently placed on-site or removed for off-site disposal until the results of chemical analyses have been received and the materials have been properly classified. The Contractor shall submit to the Engineer results of field and laboratory chemical analyses tests within seven days after their completion, accompanied by the classification of the material determined by the Contractor, and the intended disposition of the material. The Contractor shall submit to the Engineer for review all plans and documents relevant to LSP services, including but not limited to, all documents that must be submitted to the DEP.

WASTE TRACKING:

Copies of the fully executed Weight Slips/Bills of Lading/ Manifests/Material Shipping Records or other material tracking form received by the Contractor from each disposal facility and for each load disposed of at that facility, shall be submitted to Engineer and the Contractor's LSP within three days of receipt by the Contractor. The Contractor is responsible for preparing and submitting such documents for review and signature by the LSP or other appropriate person with signatory authority, three days in advance of transporting soil off-site. The Contractor shall furnish a form attached to each manifest or other material tracking form for all material removed off-site, certifying that the material was delivered to the site approved for the class of material. If the proposed disposition of the material is for reuse within the project construction corridor, the Contractor shall cooperate with MassDOT to obtain a suitable representative sample(s) of the material to establish its structural characteristics in order to meet the applicable structural requirements as fill for the project.

All material transported off-site shall be loaded by the Contractor into properly licensed and permitted vehicles and transported directly to the selected disposal or recycling facility and be accompanied by the applicable shipping paper. At a minimum, truck bodies must be structurally sound with sealed tail gates, and trucks shall be lined and loads covered with a liner, which shall be placed to form a continuous waterproof tarpaulin to protect the load from wind and rain.

DECONTAMINATION OF EQUIPMENT

Tools and equipment which are to be taken from and reused off site shall be decontaminated in accordance with applicable local, state and federal regulations. This requirement shall include, but not be limited to, all tools, heavy machinery and excavating and hauling equipment used during excavation, stockpiling and handling of contaminated material. Decontamination of equipment is considered incidental to the applicable excavation item.

REGULATORY REQUIREMENTS

The Contractor shall be responsible for adhering to regulations, specifications and recognized standard practices related to contaminated material handling during excavation and disposal activities. MassDOT shall not be responsible at any time for the Contractor's violation of pertinent State or Federal regulations or endangerment of laborers and others. The Contractor shall comply with all rules, regulations, laws, permits and ordinances of all authorities having jurisdiction including, but not limited to, Massachusetts DEP, the U.S. Environmental Protection Agency (EPA), Federal Department of Transportation (DOT), Massachusetts Water Resources Authority (MWRA), the Commonwealth of Massachusetts and other applicable local, state and federal agencies governing the disposal of contaminated soils.

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All labor, materials, equipment and services necessary to make the work comply with such regulations shall be provided by the Contractor without additional cost to MassDOT. Whenever there is a conflict or overlap within the regulations, the most stringent provisions shall apply. The Contractor shall reimburse MassDOT for all costs it incurs, including penalties and/or for fines, as

a result of the Contractor's failure to adhere to the regulations, specifications, recognized standard practices, etc., that relate to contaminated material handling, transportation and disposal.

SUBMITTALS

I. Summary of Sampling Results, Classification of Material and Proposed Disposal Option.

The following information, presented in tabular format, must be submitted to the Engineer for review and approval prior to any reuse on-site or disposal off-site. This requirement is on-going throughout the project duration. At least two weeks prior to the start of any excavation activity, the Contractor shall submit a tracking template to be used to present the information as stipulated below. Excavation will not begin until the format is acceptable to MassDOT.

Characterization Reports will be submitted for all soil, sediment, debris and groundwater characterized through the sampling and analysis program. Each report will include a site plan which identifies the sampling locations represented in the Report. The Construction Plan sheets may be used as a baseplan to record this information.

The Sampling Results will be presented in tabular format. Each sample will be identified by appropriate identification matching the sample identification shown on the Chain of Custody Record. The sample must also be identified by location (e.g. grid number or stockpile number). For each sample, the following information must be listed: the classification (unregulated, regulated, etc.), proposed disposal option for the stockpile or unit of material represented, and, all analytical results.

Each Characterization Report will include the laboratory analytical report and Chain of Custody Record for the samples included in the Report.

II. Stockpiling, Transport, and Disposal.

At least two weeks prior to the start of any excavation activity, the Contractor shall submit, in writing, the following for review and shall not begin excavation activity until the entire submittal is acceptable to MassDOT.

Excavation and Stockpiling Protocol:

Provide a written description of the management protocols for performing excavation and stockpiling and/or direct loading for transport, referencing the locations and methods of excavating and stockpiling excavated material.

Disposal and Recycling Facilities:

1. Provide the name, address, applicable licenses and approved waste profile for disposal and/or recycling location(s) where contaminated soil will be disposed. Present information substantiating the suitability of proposed sites to receive classifications of materials intended to be disposed there, including the ability of the facility to accept anticipated volumes of material.

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2. Provide a summary of the history of compliance actions for each disposal/recycling facility proposed to be used by the Contractor. The compliance history shall include a comprehensive list of any state or federal citations, notices of non-compliance, consent decrees or violations relative to the management of waste (including remediation waste) at the facility. Material should not be sent to facilities which are actively considered by the DEP, USEPA or other responsible agency to be in violation of federal, state or local hazardous waste or hazardous material regulations. MassDOT reserves the right to reject any facility on the basis of poor compliance history.

Transportation:

The name, address, applicable license and insurance certificates of the licensed hauler(s) and equipment and handling methods to be used in excavation, segregation, transport, disposal or recycling.

III. Material Tracking and Analytical Documentation for Reuse/Disposal.

The following documents are required for all excavation, reuse and disposal operations and shall be in the format described. At least two weeks prior to the start of any excavation or demolition activity, the Contractor shall submit the tracking templates required to present the information as stipulated below. Excavation or demolition will not begin until the format is acceptable to MassDOT.

All soils, sediments and demolition debris must be tracked from the point of excavation to stockpiling to onsite treatment/processing operations to off-site disposal or onsite reuse as applicable.

Demolition Debris:

Demolition debris must be tracked if the debris is stockpiled at a location other than the point of origin or if treatment or material processing is conducted. Identification of locations will be based on the station-offset of the location. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations/comments, quantity, and stockpile ID/processing operation location. For each unit of material tracked, the table will also track reuse of the material on-site, providing reuse date, location of reuse as defined by start and end station, width of reuse location by offset, the fill elevation range, quantity, and finish grade for said location. For demolition debris which is not reused on site, the table will also track disposal of the material as defined by disposal date, quantity and disposal facility. The table must provide a reference to any analytical data generated for the material.

Soil/Sediment:

Soil excavation will be identified based on the station-offset of the excavation location limits. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations, quantity, and stockpile number/location. For each unit of material tracked, the table will also track reuse of the material on-site and disposal of the material off-site using the same categories identified for demolition debris above.

BASIS OF PAYMENT AND METHOD OF MEASUREMENT

Disposal of contaminated soil shall be measured for payment by the Ton of actual and verified

ITEM 181.11-181.14 (CONTINUED)

weight of contaminated materials removed and disposed of. The quantities will be determined only by weight slips issued by and signed by the disposal facility. The most cost-effective, legal disposal method shall be used. The work of the LSP for disposal under all of these items shall be incidental to the work with no additional compensation.

ITEM 181.11 Measurement for Disposal of Unregulated Soil shall be under the Contract Unit Price by the weight, in tons, of contaminated materials removed from the site and transported to and disposed of at an approved location or licensed facility, and includes any and all costs for approvals, permits, fees and taxes, additional testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 181.12 Measurement for Disposal of Regulated Soil – In-State Facility shall be under the Contract Unit Price by the weight in tons of contaminated materials removed from the site and transported to and disposed of at an approved in-state facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 181.13 Measurement for Disposal of Regulated Soil - Out-of-State Facility shall be under the Contract Unit Price by the weight in tons of contaminated materials removed from the site and transported to and disposed of at an approved out-of-state facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 181.14 Measurement for Disposal of Hazardous Waste shall be under the Contract Unit Price by the weight in tons of hazardous waste removed from the site and transported to and disposed of at the licensed hazardous waste facility, and includes any and all costs for approvals, permits, fees and taxes, testing/characterization required by the facility beyond the standard disposal test set, decontamination procedures, transportation and disposal.

ITEM 183.1 TREATMENT OF CONTAMINATED GROUNDWATER GALLON

This Item addresses the treatment and disposal of contaminated groundwater encountered during excavation operations. The work generally consists of furnishing the materials, equipment, labor, services, testing/sampling, waste characterization, transportation, disposal, permits and agreements necessary to perform the work required for the collection, treatment and disposal of contaminated groundwater.

The Contractor is advised that contaminated groundwater may be encountered during dewatering activities. The levels and nature of contamination may vary depending on location and/or depth. No data has been provided in this specification indicating the types of contaminants that may be found in groundwater encountered during this work. It will be the responsibility of the Contractor to ensure that water removed during dewatering operations is treated and disposed of in accordance with all applicable laws and regulations and in accordance with this specification.

The Contractor shall monitor the quantity of groundwater collected for treatment using an in-line totalizer flowmeter or an alternate method approved by MassDOT. The Contractor shall, at all times, minimize the quantity of groundwater removed from the excavations. All groundwater determined to be contaminated will be managed in accordance with all applicable local, state and

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federal regulations.

It is not the intent herein for the Department to design for or specify to the Contractor which particular treatment is to be used, if necessary. Rather, it is the Department's intent to provide guidance to the Contractor for informational and bidding purposes only. It is, therefore, the Contractor's responsibility to use a treatment method to allow him/her to meet any and all laws, regulations, policies, guidelines and permit requirements. Treatment of contaminated groundwater for dewatering operations is generally performed using a mobile treatment trailer equipped with one or more granular-activated carbon (GAC) canisters, although other techniques are also used.

It is likely that treatment of the contaminated groundwater using granular-activated carbon will be required to complete the work under this Contract. The Methods described under Item 183.1 provides for the identification, testing, management and treatment or disposal of contaminated groundwater and shall be implemented, at a minimum and as necessary by the Contractor via Methods under Item 183.1.

The overall handling and management of contaminated groundwater is regulated under the provisions of 310 CMR 40.000, 314 CMR 3.00 and 5.00, NPDES and other applicable laws. The unpermitted discharge of contaminated dewatering effluent into the environment (storm drain, surface water body, onto the ground) is a violation of federal and state laws and regulations. Should dewatering of contaminated groundwater be necessary, approvals must be sought from the appropriate federal, state, or local regulatory jurisdiction. The USEPA will not specify a treatment system or method, but normally requires that the treated discharge meet Massachusetts Drinking Water Standards.

The discharge standards are normally met by treating the dewatered groundwater through granular-activated carbon canisters, or similar techniques. Longer term discharges to surface waters or storm drains, and any discharges to the ground, require approval and/or issuance of a permit from the DEP Division of Water Pollution Control. The Contractor shall be responsible for applying for, paying all fees for and obtaining all permits required for treatment and/or disposal of contaminated groundwater. Additional requirements may be mandated by local/regional sewer authorities for discharge to sanitary sewer or Publicly Owner Treatment Works (POTW). Copies of permit applications and correspondence from federal and state agencies and sewer authorities shall be supplied to the Engineer prior to dewatering activities.

EPA regulations published in the Federal Register on September 9, 2005 (70 FR 53663) require a National Pollutant Discharge Elimination System (NPDES) Remediation & Miscellaneous Contaminated Sites General Permit (RGP) for all contaminated construction site dewatering activities in Massachusetts (MAG910000) that will involve the discharge of water to classes of receiving waters designated in the Massachusetts Water Quality Standards (314 CMR 4.00). The application requires that operators of proposed new discharges seeking coverage under this general permit submit a Notice of Intent (NOI) to EPA New England post-marked at least 14 days prior to commencement of discharge. The Contractor is solely responsible for applying for and obtaining coverage under the NPDES Remediation General Permit from EPA and, if applicable, DEP, including the costs associated with sampling and analysis of groundwater and any application fees. The Contractor is required to submit a completed copy of the NOI to the Engineer and the Director of Environmental Programs, Construction Division, 10 Park Plaza, Boston, prior to commencement of discharge.

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Upon permanent cessation of the discharges authorized by the RGP, the Contractor shall be responsible for submitting a Notice of Termination (NOT) to EPA New England within 30 days of the permanent cessation. The Contractor is required to submit to MassDOT a completed copy of the NOT within 14 days of the permanent cessation of the discharges authorized by the RGP. All costs and fees associated with the submission of the NOT will be the responsibility of the Contractor.

The Contractor shall be responsible for adhering to regulations, specifications, and recognized standard practices related to contaminated groundwater handling during dewatering activities. MassDOT shall not be responsible at any time for the Contractor's violation of pertinent local, state or federal regulations or endangerment of laborers and others. The Contractor shall comply with all rules regulations, laws, permits and ordinances of all authorities having jurisdiction including, but not limited to, Massachusetts Department of Environmental Protection (DEP), the U.S. Environmental Protection Agency (EPA), Federal Department of Transportation (DOT), Massachusetts Water Resources Authority (MWRA), the Commonwealth of Massachusetts and other applicable local, state and federal agencies governing this work.

The Contractor shall be responsible for determining compliance with the requirements of any permit and for any sampling, testing, and disposal required in connection with said permits. MassDOT and the City/Town reserve the right to collect additional samples of dewatered groundwater to determine the Contractor's compliance with the Permit's requirements. All laboratory testing is to be performed by a DEP certified laboratory for all parameters being tested. Copies of all field and laboratory testing results, reports, etc. required by the permits must be supplied to the Engineer. MassDOT, DEP, and the permit-granting agency, where applicable, reserve the right to collect additional samples of discharged groundwater to verify compliance with permit requirements.

For the purpose of these specifications and to establish a basis for the bid, it is anticipated that granular-activated carbon will be the treatment medium for dewatered contaminated groundwater. The bidder shall factor into the payment item all costs associated with the testing and analyses that may be required by the permitting agency. In addition, any laboratory testing of groundwater is to be performed by a DEP certified laboratory for the parameters being tested. Copies of all field and laboratory testing results will be supplied to the Engineer. Bid price shall also include full compensation for labor, materials, maintenance, mobilization, rental and other related costs. Item 183.2 will be used for disposal of used granular-activated carbon canisters.

SUBMITTALS:

Prior to initiating work, the Contractor shall submit an excavation dewatering plan to the MassDOT that includes a detailed description of the approach to dewatering, a description of methodology for sealing the excavation to minimize infiltration of groundwater, if deemed applicable to the work, anticipated treatment, discharge points, sampling frequency, required permits, transporters and waste facilities complete with license numbers, permit numbers, contact person, and address and telephone number that the Contractor plans to utilize for waste disposal. The plan shall be submitted for the record.

The Contractor shall submit to MassDOT for review, the proposed methods for dewatering and groundwater treatment and disposal for the various portions of the work to be done. The review

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shall be for methods only. The Contractor shall remain responsible for the maintenance, performance, structural integrity and safety of the systems installed for this work as well as regulatory compliance of the applicable local, state and federal discharge standards. The contractor shall provide all groundwater sampling and analyses, results and reports required by all applicable local, state and federal agencies. The Contractor shall submit to MassDOT for

review all plans and documents that must be submitted to the EPA and DEP, including NOI, NOT, treatment system analytical reports and correspondence. Copies of all permits and approvals and lab analyses and test results associated with groundwater treatment and disposal must be submitted to MassDOT within 3 days of receipt by the Contractor.

ESTABLISHMENT OF TREATMENT PROCEDURE:

Since concentrations of contaminants in groundwater cannot be easily assessed in the field, all groundwater extracted from the ground will be considered contaminated and will be initially pumped and stored into open settling tank(s) or a fractionation tank until it can be sampled and analyzed, unless otherwise directed by MassDOT. The Contractor will perform initial sampling and analyses of the groundwater to determine the need for a permit to dispose of contaminated groundwater. Based on the results of the initial sample analysis, which must be provided to the Engineer within twenty-four (24) hours of the time the samples are received by the laboratory, the Contractor will determine the necessity for treatment(s) and disposal procedures. Sampling must also be performed to meet applicable discharge criteria as set by the appropriate regulatory agencies for the permit obtained for disposal. All discharges must meet regulatory standards set forth in the permits required for discharge. For the purposes of the bidding process, it is anticipated that the treatment system will consist of sedimentation tanks, an oil water separator and liquid-phase granular activated carbon as the primary on-site treatment medium for dewatered contaminated groundwater. MassDOT may require additional treatment processes if such is determined necessary during the groundwater testing procedure. The Contractor shall integrate the additional treatment process into the treatment system, if necessary.

The Contractor shall provide all labor, equipment and appurtenances required to treat the groundwater, subject to the approval of MassDOT. Groundwater stored and tested but not requiring treatment or off-site disposal shall be discharged to a location subject to the approval of MassDOT without payment to the Contractor.

TREATMENT UNITS:

The Contractor shall furnish all labor and materials, and shall install and operate temporary groundwater treatment and disposal system(s) as necessary to treat contaminated groundwater pumped from excavations during construction activities under the Contract. Such systems shall be capable of treating groundwater to meet applicable discharge criteria as set by the appropriate regulatory agencies.

The Contractor or their Environmental Consultant shall operate, maintain and modify the selected treatment system, and conduct the necessary monitoring and reporting of influent, midpoint and effluent results, as required by the discharge permit for the disposal option selected.

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METHOD OF MEASUREMENT

Provide a treatment system that meets permit discharge requirements, mobilize it to the site, provide copies of laboratory analytical data indicating that the system is performing appropriately to meet permit requirements, and demobilize it from the site. This includes management and disposal of wastes generated during treatment prior to discharging such as activated carbon, etc. Work under Item 183.1 is based upon the number of gallons disposed or contaminated groundwater pumped through the granular-activated carbon (Item 183.2) as the medium for the treatment of contaminated groundwater that is found in pipe trenches, manhole excavations, catch basin excavations, that need to be dewatered.

BASIS OF PAYMENT

Payment shall be made at the unit price bid per liter of groundwater pumped, stored, treated as needed and tested as required by discharge permits and regulatory requirements, which price shall be full compensation for all necessary labor and materials, mobilization, maintenance, demobilization of the appropriate unit(s), freight, rental costs, field and laboratory testing costs and permits. Costs associated with the disposal of granular-activated carbon shall be covered under Item 183.2.

ITEM 183.2 DISPOSAL OF GRANULAR-ACTIVATED CARBON POUND

GENERAL

Work under Item 183.2 is based upon the disposal of used granular-activated carbon as the treatment medium for contaminated groundwater (Item 183.1) that is found during excavations in which contaminated groundwater is encountered.

BASIS OF PAYMENT

Payment shall be made at the unit price bid per pound of carbon that is properly disposed and replaced, as necessary, to meet treated water discharge requirements during dewatering operations at the site. Payment for Disposal of Granular Activated Carbon shall include compensation for all labor, equipment, materials, permits, characterization, sampling and on-site or laboratory analysis as needed or required by permits, for replacement and disposal of liquid-phase activated carbon for the on-site contaminated groundwater pumping, collection, treatment and treated water discharge system during the time period required to complete the work. No payments shall be made for replacing carbon which is spent due to the Contractor's failure to remove floating petroleum product or excess sediments prior to the groundwater entering the carbon treatment units. All other costs associated with treatment of contaminated groundwater will be covered under Item 183.1- Treatment of Contaminated Groundwater.

ITEM 698.3 GEOTEXTILE FABRIC FOR SEPARATION SQUARE YARD

The work under this item shall conform to the requirements of Subsection M9.50.0 of the Standard Specifications and the following:

The work under this item includes furnishing and installing geotextile fabric at work locations noted on the plans or as required by the Engineer.

Geotextile fabric shall be clean and new, Type 3 fabric application for subgrade or embankment stabilization. The fabric shall be listed on MassDOT's Qualified Construction Material List for the Type 3 application.

The fabric shall be installed without puckers on a smoothly graded surface and held in place to prevent movement when backfill is placed against it. Fabric shall overlap at least 12 inches at seams. Fabric shall be completely covered with backfill material of the type required at each installation. Excess fabric shall be removed from the project.

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Geotextile that becomes torn or damaged shall be replaced or patched. The patch shall extend 3 feet beyond the perimeter of the tear or damage.

METHOD OF MEASUREMENT

Item 698.3 will be measured for payment by the Square Yard, complete in place. Overlaps will be measured as a single layer.

BASIS OF PAYMENT

Item 698.3 will be paid for at the Contract unit price per Square Yard, which price shall include all labor, materials, equipment, sewing and/or overlapping material, and all incidental costs required to complete the work.

ITEM 751.765 COMPOST AND SEED OVER MODIFIED ROCK CUBIC YARD

GENERAL

The work under this Item shall conform to the relevant provisions of Subsection 751, 767, and 765 of the Standard Specifications and the following.

Work shall consist of furnishing and pneumatically applying compost in conjunction with the specified native seed on designated areas of modified rock and achieving satisfactory establishment of seeded species as specified herein.

QUALIFICATIONS

Compost application and seeding shall be done by a company having a minimum of five years of experience with native seed establishment. Prior to beginning work, the seeding Contractor shall furnish proof of qualifications to the Engineer for approval. Proof of qualifications shall include

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providing documentation (photos and contacts) to demonstrate knowledge and expertise with native seeding and establishment and proof of having completed successful native seeding projects.

MATERIAL AND SUBMITTALS

Compost

Compost shall meet the relevant provisions for Type 2 Compost, found in Subsection M1.06 of the Supplemental Standard Specifications.

The Engineer shall approve the Contractor's equipment for application.

Seed Mix

Seed Mixes and Submittals shall be per the item(s) for the permanent seed mix. Mix shall be:

765.21 Annual Cover Crop for Native Seeding

SEEDING SEASON

The season for seeding native mixes is April 1 - May 15 and October 1 - December 1 for dormant seeding. Written approval must be obtained for seeding outside the seeding season and, if approved, the permanent seed rate shall be increased by 50%

CONSTRUCTION METHODS

Method of application and equipment to be used shall be reviewed and approved by the Engineer prior to placement of material.

Placement of Compost

Compost shall be placed as shown on the Plans and in the Detail and as required by the Engineer. Material shall be placed so that settled material is at or slightly below the surface plane of the stone. The Contractor shall ensure that there will be adequate quantity, including adjustment for settlement.

For purposes of estimation, required compost quantities should be 300 cubic yards per acre to achieve the target depth.

Seeding

For areas smaller than half an acre, unless otherwise approved by the Engineer, seeding shall be done by broadcast method. Seeding shall be done in conjunction with or immediately following Compost application. Alternative seeding methods must be submitted and approved by the Engineer 14 days in advance of compost and seed application.

Hydroseeding

Hydroseeding may be used for sites over half an acre in size or when the rock slope does not permit safe application via a broadcasting method. Hydroseed shall be per the manufacturer’s directions and as follows.

Tank and hoses shall be cleaned from all previous hydroseeding and hydromulching projects. Seed

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shall be mixed into the slurry immediately before application and slurry applied within 30 minutes after seeds have been placed in the tank. Once seed has been placed in the tank, tank shall be agitated only enough to mix the seeds and keep slurry from separating.

When Seeding Occurs after Application of Compost or after December 1

When seeding is done more than 3 days after Compost application or when Compost is applied after December 1, seeding rate shall be increased by 50%.

Over-Seeding

Large extents of bare area (greater than 5-6 feet and depending on modified rock slope conditions) shall be over-seeded with the specified mix during the appropriate season for seeding. Rates, methods, and submittals shall be as specified under the relevant Seed Mix Item and Materials above.

Over-seeding, mulch, watering, and all work for over-seeding shall be incidental.

Determining Satisfactory Establishment

A reasonably well-established stand of the specified seeded species as determined by the Engineer and the MassDOT Landscape Architect or designated Specialist will be required for Final Acceptance. The expectation is that an acceptable number and variety of the desired permanent seeded species will be visible. For seeding with compost over modified rock this shall generally be:

- A minimum of 50% coverage by the specified permanent seeded species after one growing season (considered June-September 15). Of that percentage, generally, depending on the mix species:
    - At least 2 types of permanent seeded grass species shall be visible.
    - At least 2 species of wildflowers shall be visible.
- There will be no more than 25% coverage by weed species.
- There will be no invasive or aggressive species within the stand at the time of acceptance.
- There shall be no evidence of seed from non-native mixes (ex., clover) due to using an incorrect or modified mix or due to failure to clean the hydroseeding tank if a hydroseeder is used.

Invasive and aggressive weeds (such as mugwort, vetch, knapweed, and chicory) must be cut, pulled with roots removed, or treated with herbicide by a licensed and approved applicator prior to going to seed for Interim Acceptance. Weed removal shall be coordinated with MassDOT Landscape Architect. No herbicides shall be used without approval and coordination with MassDOT Landscape Design Section.

Acceptance of Seeding and Establishment Work

Conditional Acceptance shall be based on approval of seed mix submittals and proper application of seed as specified herein.

Final Acceptance of Seed Establishment shall be given upon satisfactory Establishment as

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described above. If the seeded area fails to meet the requirements of Establishment by the end of the growing season, contractor shall propose and implement remediations and site shall be inspected during the following growing season after July 1st. Otherwise, Contractor shall forego the payment for Final Acceptance. All remediation shall be at the contractor's expense.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Compost and Seed for Modified Rock will be measured and paid for at the Contract unit price per Cubic Yard which price shall include all labor, materials, equipment, site preparation, and all incidental costs required to complete the work.

Native Seed Mix shall be compensated at the bid price per the specified seed mix item by pound.

Schedule of payment shall be as follows:

60% upon approval of Compost application and Conditional Acceptance of seeding as specified above 40% upon Final Acceptance of Seed Establishment.

756.1 CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL PLAN LUMP SUM

The work under this item shall consist of the preparation and implementation of a Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) as required by a regulatory agency. This Item is applicable to projects that are not subject to the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) required by the National Pollutant Discharge Elimination System (NPDES) and applicable Construction General Permit (CGP) issued by the U.S. Environmental Protection Agency (EPA).

The work under this item shall also include the preparation, submission and implementation of a Flood Contingency Plan. The plan shall address the potential need for the temporary relocation of construction and auxiliary equipment situated within the 1% annual chance of flooding zone to designated upland locations above the Base Flood Elevation during flood events. The Flood Contingency Plan shall address any additional MassDEP-required information requirements, as applicable. The Flood Contingency Plan shall be submitted to the Engineer for review and approval at the same time as the CP/PP.

The CP/PP, at a minimum, shall include the following:

- Project & Site Description
- Project Site Contact Information
    - This shall include the phone number for the Contractor Site Superintendent, Project Manager and CP/PP Inspector(s).
- Qualifications of the CP/PP Inspector and documentation of qualifications
    - At a minimum, relevant personnel responsible for erosion and sedimentation control inspections shall have completed the EPA's construction inspection training course and obtained a certificate confirming completion of the training module, or have completed a third-party stormwater course which covers the minimum topics listed in Part 6.3.b of the CGP.
- Reference to and information to address permit Special Conditions relevant to the CP/PP contents

- Construction Sequencing/Phasing
- Erosion Prevention, Sediment Control, and Best Management Practices (BMP s) to be implemented
- Maintenance measures and intended timeline to address maintenance and corrective actions for implemented Erosion Prevention Measures, Sediment Control Devices, and BMPs
- Anticipated inspection schedule and sample inspection report form
    - Use the EPA's Site Inspection Report Template found on the EPA's website.
- Site Plans
    - This shall depict, at minimum, the project limits, locations of construction phase erosion prevention measures, construction phase sedimentation control measures, limits of disturbance, staging and laydown areas, proposed dewatering locations and proposed stockpile locations. Depict existing jurisdictional wetland resource areas, drainage conveyances and stormwater treatment features.

The Contractor shall prepare the CP/PP, and update/revise as needed upon changes in site conditions, relevant project personnel, construction phase controls, schedule changes, revised work, regulations, and construction methodologies. The Contractor shall submit the CP/PP to the Engineer for approval at least thirty (30) days prior to prior to commencement of any project related activity that disturbs land, including clearing and grubbing. Submission of the CP/PP to a regulatory agency for review and approval may also be required by a Special Condition associated with a permit issued under the Wetlands Protection Act, or Section 401of the Clean Water Act and their implementing Regulations. It is the responsibility of the Contractor to ensure the CP/PP is submitted to reviewers in a timely manner to support the construction schedule.

It is the responsibility of the Contractor to comply with the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Army Corps of Engineers Section 404 Permit and other environmental permits applicable to the project, and to include in the CP/PP the methods and means necessary to comply with applicable conditions of said permits.

Inspection frequency shall be [*Special Provision Preparer shall insert frequency listed in permit*]. The inspections shall be performed by an individual that meets the qualifications specified in the permits and proof of the inspector's qualifications shall be included as an Appendix in the CP/PP. CP/PP inspection reports shall be completed and distributed to the Resident Engineer within 24-hours of each inspection. Special conditions associated with permits may also require submittal of reports to regulators at a certain frequency. Reports shall be maintained throughout the duration of the project. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector.

The Contractor is responsible for preparation of the CP/PP, inspections, and associated reports. The Standard Specifications require adequate erosion and sedimentation control for the duration of the Contract. All control measures must be properly selected, installed, and maintained in accordance with manufacturer specifications, good engineering practices, and MassDOT standard specifications and special provisions. Contractor must maintain all control measures and other protective measures in effective operating conditions in accordance with the additional Special

Provisions herein. If periodic inspections or other information indicates a control has been used inappropriately or is no longer adequate, it is the responsibility of the Contractor to replace or modify the control for site conditions at no additional cost to the Department.

Method of Measurement and Basis of Payment

Item 756.1 will be measured at the contract unit price, lump sum, which shall include all work detailed above, including CP/PP and Flood Contingency Plan preparation, required revisions, revisions/addenda during construction, inspections and reports.

Work under this item shall include acceptable completion of the CP/PP, Flood Contingency Plan, site inspections, and revisions/amendments required during construction. In addition, any erosion prevention or sediment control measures beyond those specified in bid items that are selected by the Contractor to facilitate and/or address the Contractor's schedule, methods and execution of the work shall be considered incidental to this item.

Payment of thirty (30) % of the contract price shall be made upon acceptance of the CP/PP and Flood Contingency Plan. Payment of forty (40) % of the contract price shall be made in equal installments over the expected duration of stormwater pollution prevention measures. Payment of the final thirty (30) % of the contract price shall be paid when final stabilization has been achieved (minimum of 75% total cover of disturbed vegetated areas with perennial ground cover).

ITEM 767.121 SEDIMENT CONTROL BARRIER FOOT

The work under this item shall conform to the relevant provisions of Subsections 670, 751 and 767 of the Standard Specifications and shall include the furnishing and placement of a sediment control

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barrier. Sediment control barrier shall be installed prior to disturbing upslope soil.

The purpose of the sediment control barrier is to slow runoff velocity and filter suspended sediments from storm water flow. Sediment barrier may be used to contain stockpile sediments, to break slope length, and to slow or prevent upgradient water or water off road surfaces from flowing into a work zone. Contractor shall be responsible for ensuring that barriers fulfill the intent of adequately controlling siltation and runoff.

Twelve-inch diameter (after installation) compost filter tubes with biodegradable natural fabric (i.e., cotton, jute, burlap) are intended to be the primary sedimentation control barrier. Photo-biodegradable fabric shall not be used.

For small areas of disturbance with minimal slope and slope length, the Engineer may approve the following sediment control methods:

- 9-inch compost filter tubes
- Straw bales which shall be trenched

No straw wattles may be used. Additional compost filter tubes (adding depth or height) shall be used at specific locations of concentrated flow such as at gully points, steep slopes, or identified failure points in the sediment capture line.

When required by permits, additional sediment barrier shall be stored on-site for emergency use and replacement for the duration of the contract.

Where shown on the plans or when required by permits, sedimentation fence shall be used in addition to compost filter tubes and straw bales and shall be compensated under that item.

Sediment control barriers shall be installed in the approximate location as shown on the plans and as required so that no excavated or disturbed soil can enter mitigation areas or adjacent wetlands or waterways. If necessary to accommodate field conditions and to maximize effectiveness, barrier locations may be shifted with approval from the Engineer. Barriers shall be in place prior to excavation work. No work shall take place outside the barriers.

MATERIALS AND CONSTRUCTION

Prior to initial placement of barriers, the Contractor and the Engineer shall review locations specified on the plans and adjust placement to ensure that the placement will provide maximum effectiveness.

Barriers shall be staked, trenched, and/or wedged as specified herein and according to the Manufacturer's instructions. Barriers shall be securely in contact with existing soil such that there is no flow beneath the barrier.

Compost Filter Tube

Compost material inside the filter tube shall meet M1.06.0, except for the following: no peat, manure or bio-solids shall be used; no kiln-dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded.

Outer tube fabric shall be made of 100% biodegradable materials (i.e., cotton, hemp or jute) and shall have a knitted mesh with openings that allow for sufficient water flow and effective sediment

ITEM 767.121 (CONTINUED)

capture.

Tubes shall be tamped, but not trenched, to ensure good contact with soil. When reinforcement is necessary, tubes shall be stacked as shown on the detail plans.

Straw Bales

Straw bales shall be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

Bales should be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. All bales should be either wire-bound or string-tied. Straw bales should be installed so that bindings are oriented around the sides (rather than along the tops and bottoms) of the bales in order to prevent deterioration of the bindings.

The barrier should be entrenched and backfilled. A trench should be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. The trench must be deep enough to remove all grass and other material which might allow underflow. After the bales are staked and chinked (filled by wedging), the excavated soil should be backfilled against the barrier. Backfill soil should conform to the ground level on the downhill side and should be built up to 4 inches against the uphill side of the barrier.

Each bale should be securely anchored by at least 2 stakes or re-bars driven through the bale. The first stake in each bale should be driven toward the previously laid bale to force the bales together. Stakes or re-bars should be driven deep enough into the ground to securely anchor the bales. For safety reasons, stakes should not extend above the bales but should be driven in flush with the top of the bale.

The gaps between the bales should be chinked (filled by wedging) with straw to prevent water from escaping between the bales. Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency. Wedging must be done carefully in order not to separate the bales.

When used in a swale, the barrier should be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment-laden runoff will flow either through or over the barrier but not around it.

Sedimentation Fence

Materials and Installation shall be per Section 670.40 and 670.60 of the Standard Specifications and the following:

Sedimentation fence shall only be used if shown on the plans or when specified by Orders of Condition or other permit requirements.

When used with compost filter tubes, the tube shall be placed on a minimum of 8 inches of folded fabric on the upslope side of the fence. Fabric does not need to be trenched.

When used with straw bales, an 8-inch deep and 4-inch wide trench or V-trench shall be dug on the upslope side of the fence line. One foot of fabric shall be placed in the bottom of the trench followed by backfilling with compacted earth or gravel. Stakes shall be on the down slope side of the trench and shall be spaced such that the fence remains vertical and effective.

ITEM 767.121 (CONTINUED)

Width of fabric shall be sufficient to provide a 36-inch high barrier after fabric is folded or trenched. Sagging fabric will require additional staking or other anchoring.

MAINTENANCE

Maintenance of the sediment control barrier shall be per Section 670.60 of the Standard Specifications or per the Stormwater Pollution Prevention Plan (SWPPP), whichever is more restrictive.

The contractor shall inspect the sediment barrier in accordance with relevant permits. At a minimum, barriers shall be inspected at least once every 7 calendar days and after a rain event resulting in 0.25 inches or more of rainfall. Contractor shall be responsible for ensuring that an effective barrier is in place and working effectively for all phases of the Contract.

Barriers that decompose such that they no longer provide the function required shall be repaired or replaced as directed. If the resulting berm of compost within the fabric tube is sufficiently intact (despite fabric decay) and continues to provide effective water and sediment control, barrier does not necessarily require replacement.

DISMANTLING & REMOVING

Barriers shall be dismantled and/or removed, as required, when construction work is complete and upslope areas have been permanently stabilized and after receiving permission to do so from the Engineer.

Regardless of site context, nonbiodegradable material and components of the sediment barriers, including photo-biodegradable fabric, plastic netting, nylon twine, and sedimentation fence, shall be removed and disposed off-site by the Contractor.

For naturalized areas, biodegradable, natural fabric and material may be left in place to decompose on-site. In urban, residential, or other locations where aesthetics is a concern, the following shall apply:

- Compost filter tube fabric shall be cut and removed, and compost shall be raked to blend evenly (as would be done with a soil amendment or mulch). No more than a 2-inch depth shall be left on soil substrate.
- Straw bales shall be removed and disposed off-site by the Contractor. Areas of trenching shall be raked smooth and disturbed soils stabilized with a seed mix matching adjacent seeding or existing grasses (i.e., lawn or native grass mix).
- Sedimentation fence, stakes, and other debris shall be removed and disposed off-site. Site shall be restored to a neat and clean condition.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 767.121 will be measured and paid for at the contract unit price per foot of sediment control barrier which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of soil, and all incidental costs required to complete the work.

Additional barrier, such as double or triple stacking of compost filter tubes, will be paid for per

ITEM 767.121 (CONTINUED)

foot of tube installed.

Barriers that have been driven over or otherwise damage by construction activities shall be repaired or replaced as directed by the Engineer at the Contractor's expense.

Sedimentation fence used in conjunction with compost filter will be measured and paid for separately under Item 697, Sedimentation Fence.

ITEM 767.122 SEDIMENT BARRIER - COIR LOG FOOT

The work under this item shall conform to the relevant provisions of Subsections 101, 120, 170, and 751 of the Standard Specifications and the following:

Sediment Barrier - Coir Log shall be used in wet locations where the barrier will not require removal; when barrier is placed immediately adjacent to existing wetlands; as a check dam in swales; in locations as shown on the Drawings; and/or in locations required by the Engineer.

Permits, Codes and Regulations: The Contractor shall comply with all rules, regulations, laws and ordinances of the City/Town and State, and all other authorities having jurisdiction over the Project site. All labor, materials, equipment, and services necessary to make the work comply with such requirements shall be provided by the Contractor without additional cost to the Department.

MATERIALS

Coir Log: Coir Log shall be biodegradable coir fiber cylindrical bundles. Inner core shall be 100 percent unsorted, well-cleaned, coir fiber uniformly distributed along the length of the log. The stuffed density of the coir fiber shall be a minimum of 9 pounds per cubic foot.

Outer netting shall be constructed from a minimum 3-ply high strength coir bristle twine. The netting shall have 2-inch by 2-inch rhombic openings with hand-knotted junctions. The average breaking strength of the coir twine shall be a minimum of 80 pounds. Production tolerance for all the above parameters shall not exceed plus or minus 10 percent.

Coir log diameter shall be sized as shown on the drawings. Typical lengths are supplied in 10 foot or 20-foot increments. Coir logs or coir netting may not be cut to decrease length and shall maintain the physical properties as supplied by the Manufacturer.

Notched Wood Stakes: Stakes shall be oak or southern pine with dimensions as shown on the Drawings. Stakes shall be free from knots and other defects which would cause splitting and shall have a downward-angled notch as shown in the drawing.

Coconut Fiber Cord: Coconut fiber cord shall be two-ply braided cord with a breaking strength of 80 pounds, minimum 0.25-inch diameter.

Delivery, Storage and Handling: Protect materials from deterioration during delivery and while stored at site.

CONSTRUCTION METHODS

General: Prior to initial placement of the coir log sediment barrier, the Contractor and the Engineer shall review locations specified on the plans and adjust placement, if required, to ensure that the coir log positioning and configuration will provide maximum sediment capture. Coir log sediment

ITEM 767.122 (CONTINUED)

barrier(s) shall be in place prior to excavation work and no work shall take place outside the coir log barrier(s).

Installation: Coir logs shall be staked and secured as shown on the Drawings, as specified herein, and/or as recommended by the Manufacturer. The Contractor shall remove all underlying vegetation or debris to ensure that each coir log is securely in contact with soil, such that there is no flow beneath the log.

When used as a check dam barrier in a swale, the coir log shall be centered in the low point of the swale, perpendicular to the flow, with ends extending upslope. The log check dam barrier shall extend such that the log top elevation at the center of the swale is lower than the lowest elevation at the end log, to ensure that sediment-laden runoff will flow either through or over the coir log but not around it. The coir log check dam barrier shall have length such that no seams occur in the swale.

Notched wood stakes shall be driven parallel on both sides of the coir log at a typical spacing of 5 feet on center, unless site conditions warrant a closer spacing distance to ensure logs are firmly secured to the underlying soil. Stakes shall not extend more than 1 foot beyond the top of the log. Coir twine shall lash the logs to notched stakes in a cross-lashing fashion between stakes, throughout the length of the log barrier.

When utilizing multiple logs for sediment control, each coir log shall be laced together end-to-end (creating a seam) with coir twine to create a continuous length. End-to-end lacing may be completed before or after placement, to facilitate handling.

Maintenance: Maintenance of the coir log sediment barrier shall be per the Stormwater Pollution Prevention Plan (SWPPP).

The contractor shall inspect the sediment barrier in accordance with relevant permits. At a minimum, barriers shall be inspected at least once every 7 calendar days and after a rain event resulting in 0.25 inches or more of rainfall. The Contractor shall be responsible for ensuring that an effective barrier is in place and working effectively for all phases of the Contract. Under no condition shall sediment be allowed to accumulate more than 4 inches above the original ground line.

If a breach or other failure of the barrier occurs, the barrier shall be immediately restored. Repair shall include replacement of entire defective segments or for short breaches, revetment with additional coir logs, set directly adjacent to the downslope side of the breech. Revetment coir logs must overlap breech by a minimum of 2 feet on each side. The Engineer must approve breech repair means and methods as well as outcome.

If the coir log sediment barrier is damaged by equipment or undergoes a significant washout or other major failure, the Contractor shall replace the component in its entirety, at the discretion and approval of the Engineer. Any delay in maintaining the barrier shall be cause to immediately suspend the work as provided for in Subsection 8.09: Delay and Suspension of Work.

Disposition/Removal**:** For naturalized areas, coir logs and wooden stakes may be left in place to decompose on-site. For areas where, in the determination of the Engineer, aesthetics are a concern, logs, errant coir fiber material, and stakes may require removal.

ITEM 767.122 (CONTINUED)

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 767.122 Sediment Barrier - Coir Log will be measured for payment by the FOOT, complete in place and will be paid for at the Contract unit bid price per FOOT, which price shall include all labor, materials, equipment, and incidental costs required to complete the work.

No separate payment will be made for coir log(s) follow-up maintenance and repairs, or disposal (if required), but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 990.1 COFFERDAM STRUCTURE NO. D-08-0002 LUMP SUM

The work under this Item shall conform to the relevant provisions of Section 140, 901, 950, 960 and the following:

The work under this Item consists of constructing a cofferdam as required for the demolition of the existing abutments and wingwalls, extraction of existing piles; installation of new piles; and the construction of the new abutments and wingwalls, as shown on the Plans. Temporary shoring for any other work in this Contract shall not be included here, but shall be considered incidental to the Item for which it pertains unless specifically included in a separate Item.

The cofferdam shown on the Plans is intended to provide a pre-defined structure for bidding purposes only. The Contractor shall be solely responsible for reviewing, verifying and designing a cofferdam that is consistent with his/her means and methods. Design of the cofferdam shall be in accordance with allowable stress method conforming to AASHTO Standard Specifications and shall be stamped by a Professional Structural Engineer registered in the Commonwealth of Massachusetts.

Prior to any work, the Engineer must approve complete detailed drawings and complete calculations for the excavation support system in writing. The cofferdam shall include all sheeting, bracing, control of water, and other controls as necessary to provide excavation support for the demolition of the existing bridge and dry construction of the new bridge. Control of water shall comply with all submittal and permitting requirements specified under Item 991.1 CONTROL OF WATER – STRUCTURE NO. D-08-002.

Streambed material within the cofferdam area shall be removed and re-laid in accordance with the requirements of Item 151.9 STREAMBED RESTORATION.

CONSTRUCTION METHODS

Cofferdam construction shall conform to the requirements of Section 140 and the following: Cofferdam work shall be entirely enclosed within turbidity screens as specified herein. Portions of sheet piling and/or other materials used for cofferdams shall be left in place as shown on the Plans, or as directed by the Engineer, and the cutoff portions shall be removed from the site.

Because of the shallow bedrock and proxitimy of battered piles at this site, portions of the cofferdam may require whalers and bracing, or required to be anchored into bedrock. It is the Contractor’s responsibility to avoid conflict with the battered piles. No separate payment shall be made for any such bracing or anchorage necessary to avoid the battered piles.

Any part of the cofferdam that protrudes into the supporting soil below the bridge structure shall

ITEM 990.1 (CONTINUED)

not be removed, but shall be cut off and left in place with no additional payment. Cofferdam shall be cut of a minimum of 2 feet below finish grade. Supporting soil shall be defined as all soil directly below the footing contained within a series of planes that originate at the perimeter of the bottom of the footing and project down and away from the footing at an angle of 45° from the horizontal.

It is expressly understood and agreed that the Contractor is of sole and exclusive responsibility for any damage to adjacent structures and installations either above or below ground that may be caused by the installation or removal of the earth retaining systems, failure or yielding of the earth retaining systems, or settling of the ground adjacent thereto, or other factors related to said earth retaining systems.

Installation of Turbidity Screens

With the exception of the channel between the abutments, where turbidity screens will not be required, at other locations where sheeting is to be installed in the waterway or excavation is to occur; where cofferdams are to be installed; or where other work is undertaken within the water, turbidity screens shall be installed for the full depth of water to completely enclose the work area unless the perimeter of the work is partially bounded by the shore or impermeable shore structure. Under those circumstances the turbidity screens shall occupy the remainder of the perimeter open to the channel. Installation and removal of turbidity screens shall be performed by skilled workers experienced in this type of operation. No work at a particular location in the channel shall be undertaken until the installation of turbidity screens has been completed.

The turbidity screens shall be deployed such that the navigational traffic in the channel will not be disrupted. The Contractor shall maintain the turbidity screens in good operating condition, acceptable to the Engineer and the Department of Environmental Protection, and repair or replace the screens, buoyancy equipment, tensile cable and ballast chain as needed to maintain the integrity of the enclosures.

Turbidity screens shall remain in place at individual work locations for a minimum of 24 hours after completion of the work including removal of sheeting, cofferdams and other temporary in-water construction.

Submittals

Submittals shall conform to the requirements of the Standards and the additional requirements specified herein. Catalogue cuts and shop drawings showing the materials to be used as turbidity screens and the means and methods for installation/removal of turbidity screens.

The Contractor shall submit shop drawings showing complete details designed and stamped by a Professional Structural Engineer registered in conformance with the laws of the Commonwealth of Massachusetts.

BASIS OF PAYMENT

The work under this Item 990.1 shall be paid for at the contract Lump Sum unit price, which price will constitute full compensation for all materials, tools, equipment, and all labor including but not limited to, constructing, maintaining and removing cofferdam, and all incidental items required to complete the work. Turbidity screens (silt curtains) will not be separately measured for payment

but all costs will be considered incidental to this Item. Upon installation of the Cofferdam, 70 percent of the Contract unit price Lump Sum will be paid and the remaining 30 percent will be paid upon removal or cut off as specified on the Plans. Payment for control of water within the cofferdam shall be under Item 991.1. Payment for streambed restoration within the cofferdam shall be under 151.9.

ITEM 991.1 CONTROL OF WATER – STRUCTURE NO. D-08-002 LUMP SUM

Work under this Item shall conform to the relevant provisions of Sections 7.02 and 140 of the Standard Specifications, all applicable environmental regulations and permits, and the following:

The work to be performed under this Item shall include all work necessary for the control of water within the cofferdam to excavate, demolish the existing structure, and construct the new structure in the dry. The work shall include designing, furnishing, installing, maintaining, operating, and removing temporary dewatering systems as required, to lower and control water levels. Work also includes properly disposing of pumped water, constructing, maintaining, observing, and removing of equipment and instrumentation for control of the system. Water shall be discharged as specified in the environmental permits obtained for this project. No direct discharge shall be allowed into the Muddy Cove during the dewatering operations.

The demolition work shall be paid under and in accordance with the requirements of Item 115.1 DEMOLITION OF BRIDGE NO. D-08-002. Any streambed material within the cofferdam area that is removed and re-laid, shall be paid under and in accordance with the requirements of Item 151.9 STREAMBED RESTORATION.

It is the responsibility of the Contractor to determine the need and extent of dewatering required, sedimentation and dewatering techniques and controls and submit method and materials he/she proposes to use for approval by the Engineer.

The Contractor is cautioned that flow rates in the river can increase substantially during and after storm events. The flow diversion and bypass pumping operations shall include contingencies for accommodating the increased flow during such events. At a minimum, the flow diversion and bypass pumping operations shall be designed to accommodate a 2-year storm event with a flow dischardge of 63 cubic feet per second. In the event of a storm exceeding this capacity, the contractor shall be responsible for stabilizing the work zone and allowing the excess flow to overflow the diversion/bypass mechanisms and flow through the work zone.

Plans and calculations for the water control measures shall be developed by the Contractor for this Item. These plans and calculations shall be prepared and stamped by a Professional Engineer registered in the Commonwealth of Massachusetts and shall be submitted for review and approval prior to the start of construction.

The Contractor shall use such equipment and shall perform the operations in such a manner that boiling or other disturbances of the soil in the foundation area will be prevented. The Contractor shall keep the excavated area dry by such means that the water will be prevented from entering the excavations and adversely affecting the stability of the foundation material or supporting soils.

The pumping discharge shall not be allowed to enter directly into the water from the work areas, rather it shall be pumped to a temporary stilling basin or other appropriate treatment or containment device. The criteria that shall be implemented for the control of water must meet the following:

1. The enclosure shall be adequately sized and designed to achieve adequate water quality treatment/sedimentation trapping and prevent overtopping from dewatering and to provide the required filtering or containment.
2. The outlet from the containment structure shall not cause erosion of the surrounding area. An approved method of controlling erosion, such as an erosion control blanket, stone, etc. shall be used at the outlet.

ITEM 991.1 (CONTINUED)

3. Impacts from dewatering will be minimized by designing support walls for minimal leakage, covering trucks, barges and stockpiles during rain events and land contouring to limit surface runoff from leaving the dewatering site.
4. There shall be no placement of dewatering equipment within wetland or water resource areas.
5. Dewatered excavated material will be transported to the disposal site in accordance with local, state, and federal regulations.
6. The control of water containment structure shall be maintained as follows:
    a. Inspect at least twice daily during dewatering operations.
    b. Repair any damage immediately.
    c. Clean containment structure daily. Remove any debris immediately.
    d. Remove sediments when accumulated deposits reach a depth of 6 inches
    e. Dispose sediments outside of saltwater marsh area limits at a location approved by the Engineer.

The Contractor shall inspect the outlet daily and maintain the erosion controls at the outfall.

Placement of the dewatering stilling structure will be specified in the dewatering plan and will be submitted for approval by the Engineer. Pumping shall be conducted in a manner which will not adversely affect the freshly placed concrete within the excavation.

The Contractor shall provide and maintain pumps, pipes and other devices to promptly and continually remove and dispose of water from the excavation areas. The size and configuration of pumps and pipes shall be selected by the Contractor.

The Contractor is advised that the effectiveness of the water control method used will vary based on the field conditions and the time at which the actual excavation work is being performed. The Engineer shall to order the Contractor to stop all excavation operations when in his judgment the Contractor's water control operations are failing to produce adequate results or are posing a threat to the environment.

BASIS OF PAYMENT

Payment for work under this Item shall be paid at the contract Lump Sum unit price. Payment for all water control work, including design for the dewatering and treatment operations, used to maintain a water free excavation for construction of the proposed work shall include all labor, tools and equipment materials and installation, piping, pumping, maintenance, subsequent removal of all related materials and equipment all as outlined above; and restoration of site shall be included in the lump sum contract price bid under this Item. This work will include preparation of the Construction Dewatering Plan.

ITEM 994.01 TEMPORARY PROTECTIVE SHIELDING, BRIDGE NO. D-08-002 LUMP SUM

Work under this Item shall consist of designing, furnishing, fabricating, erecting, maintaining, and subsequent removal of temporary side and deck underside protective shielding to provide for the safety beneath the bridge from falling debris, during the removal of the existing bridge and

ITEM 994.01 (CONTINUED)

construction of the new bridge.

The Contractor is responsible for preventing any debris resulting from demolition, excavation or construction from falling into the river below. All precautions and costs to install netting, scaffolding, shielding, etc., necessary to assure this shall be considered incidental to this Item. Any debris that falls to the river below shall be immediately removed by the Contractor at his/her expense, as directed by the Engineer.

The temporary shielding shall be placed in a manner as to prevent it from being blown out by the wind. If, in the opinion of the Engineer, the shielding is not secure, then the Contractor shall remove it and install it to the satisfaction of the Engineer at no additional cost.

The shielding shall at a minimum conform to the following:

1. The shielding must be in place before any demolition work is started. The Contractor must ensure that the shielding controls and captures all the debris and further ensure that it does not fall below into the waterway. No portion of the bridge superstructure shall be removed or constructed until the Protective Shielding is completely in place and the Contractor has approval from the Engineer to proceed.
2. Shielding shall extend the full length of the bridge and a sufficient distance above and beyond the deck overhang at the fascias to provide proper protection.
3. Shielding shall have all spaces along the perimeter and at the seams sealed to prevent dust and debris from escaping and falling below the bridge into the waterway.
4. Shielding shall be designated to safely withstand all loads that it will be subjected to during construction. The allowable design stresses shall be in accordance with the AASHTO Standard Specifications for Highway Bridges. The design shall also include a complete description of the equipment and construction methods proposed for the superstructure removal and also the maximum size of superstructure area being demolished. The shielding shall also be designed to withstand the maximum size of decking and other construction materials, should they fall during the demolition or removal processes. Shielding design, calculations and sketches shall be stamped by a Professional Engineer registered in Massachusetts.
5. Protective shielding shall not be installed until the Engineer's review has been completed. No work shall be performed until the protective shielding is in place and complete.
6. The shielding shall be maintained and remain in place until the repair work is completed. Shielding shall be removed only upon approval of the Engineer. After completion, the shielding shall be removed and disposed of to the satisfaction of the Engineer.

All materials used in the shielding system shall become the property of the Contractor and shall be removed from the site at the completion of the project.

SUBMITTALS

The Contractor shall submit shop drawings, working drawings, and associated design calculations, stamped by a Professional Engineer registered in Massachusetts, of all proposed shielding to the Engineer for approval prior to installation. The drawings shall include all details of all

ITEM 994.01 (CONTINUED)

connections, brackets, and fasteners. The protective shielding shall be designed to support all construction and dead loads safely; and to be sealed tightly at all joints.

BASIS OF PAYMENT

Payment under this Item shall be at the contract Lump Sum bid price, which shall include all labor materials, equipment, tools, and incidentals to carry out the work.

The first payment of 70 percent of the lump sum bid price of this Item will be made upon completion of the installation of the shielding system to the satisfaction and approval of the Engineer. The second payment of 30 percent of the lump sum bid prices of this Item will be made upon the complete construction of the proposed bridge and proper disposal of the shielding from the project site.

DOCUMENT A00841

MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER QUALITY CERTIFICATE

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Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection
Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey	**Kim Driscoll**	**Rebecca Tepper**	**Bonnie Heiple**
Governor	Lieutenant Governor	Secretary	Commissioner

April 9, 2026

Town of Dighton
979 Somerset Avenue
Dighton, MA 02715
Attn: Ralph Vitacco

RE: 401 Water Quality Certification
BRP WW 11, Minor Fill Project
Bridge Replacement Project (Bridge No. D-08-002 (CV1))
Pleasant Street over Muddy Cove Brook
Dighton, MA

401 WQC Filing Number: 26-WW11-0001-APP
USACE Application No. NAE-2025-02456
MassDOT File Number: 613636

Dear Mr. Vitacco:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed your application for a Water Quality Certification (WQC), as referenced above. The WQC application was deemed complete on March 10, 2026. In accordance with the provisions of MGL Ch. 21, §§26-53 and Section 401 of the Federal Clean Water Act as amended (33 U.S.C. §1251 et seq.), it has been determined there is reasonable assurance the proposed project will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law.

The proposed project will replace the deteriorating bridge that carries Pleasant Street over Muddy Cove Brook in Dighton (the Project). The project also includes installation of sidewalks, Americans with Disabilities Act (ADA) compliant features, scour protection measures, and full-depth roadway reconstruction of the approaches. The Project is being completed to replace aging infrastructure and improve public safety for vehicles, bicycles, and pedestrians.

The existing single-span bridge was built in 1918 and originally conveyed a trolley track that has since been removed or buried. The existing bridge is approximately 28-feet-long, 36.5-feet-wide, and contains two travel lanes with no sidewalks or bicycle accommodations. The

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superstructure sits on reinforced concrete abutments, U-wingwalls, and splayed wingwalls that are supported on piles of an unknown depth.

Muddy Cove Brook is a tidally influenced stream that flows east under the bridge to the Taunton River. West of the bridge, the brook is somewhat impounded due to an existing tidal restriction caused by the bridge crossing, as well as a dam further upstream near County Street. Salt marsh is present south of the bridge between Pleasant Street and the Taunton River, as well as north of the bridge between Pleasant Street and Muddy Cove Brook. Stormwater currently sheet flows from the roadway via country drainage. There are no existing drainage structures within the Project limits.

The Project will occur within a mapped 1% annual chance of flooding: Zone AE with a Base Flood Elevation (BFE) of 14 feet (NAVD88), which is approximately 6 feet above the existing roadway. In addition, Muddy Cove Brook and the Taunton River in the Project area have been identified by the Massachusetts Division of Marine Fisheries (DMF) as diadromous fish passage, migration, and/or spawning habitat for alewife (*Alosa pseudoharengus*), American eel (*Anguilla rostrata*), blueback herring (*Alosa aestivalis*), and white perch (*Morone americana*), as well as shellfish habitat for American oyster (*Crassostrea virginica*) and softshell clam (*Mya arenaria*).

A new, widened bridge deck will be installed on top of reconstructed abutments in the same footprint as the existing. The 40-foot-wide bridge deck will accommodate two 11-foot-wide travel lanes, a 2-foot-wide shoulder and 6-foot-wide sidewalk on the east side, and guardrails. Full-depth roadway reconstruction will extend approximately 165 feet south of the bridge and 75 feet north of the bridge, as well as 80 feet west along Muddy Cove Lane.

To perform the bridge work, sheet pile cofferdams will be installed around each of the existing abutments and the area within the cofferdams will be dewatered. This cofferdam placement will allow the center of the waterway to ebb and flow throughout construction. Once dry working conditions are established, the existing abutments, footings, piles, and wingwalls will be removed and replaced. The existing modified rockfill at the four bridge quadrants will also be replaced to provide continued slope stabilization. Following construction, the sheet piles will be cut two feet below the mudline and remain in place to ensure the new abutment footings are not compromised. The dredged portions of the channel will be restored with 24-inches of natural streambed material to the existing streambed elevation.

In total, 941 square feet (sf) of permanent impact to Land Under Ocean (LUO) will be required for the placement of modified rockfill at each bridge quadrant. An additional 545 sf of

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temporary impact to LUO and 98.2 cubic yards (cy) of dredging will also be needed for cofferdam installation and dewatering associated with replacement of the abutments and footings. No permanent or temporary impacts to salt marsh are proposed.

The Project will increase impervious surface area by 1,050 sf and qualifies as a redevelopment project as defined at 314 CMR 9.02. Stormwater will continue to run off via country drainage post-construction. Additional structural Stormwater Control Measures (SCMs) were determined to be infeasible in the Project area due to the proximity of Article 97 land, adjacent resource areas, and a high groundwater table. During the course of project review, application of a native salt-tolerant seed mix was added to the project plans at the roadway embankments to provide attenuation and treatment of roadway runoff before it discharges toward Muddy Cove Brook. As such, Stormwater Management Standards 2, 3, and 4 will be met to the maximum extent practicable and the project complies with 314 CMR 9.06(2)(b)5.

The Massachusetts Stream Crossing Standards (SCS) were developed for freshwater, non-tidal rivers and streams and may not be appropriate for coastal waterways. Nonetheless, the Project appears to meet the standards based on a review of USGS StreamStats and the Project plans. The regulations at 314 CMR 9.06(2)(b)5 require the elimination of tidal restrictions to the maximum extent practicable for projects that include work on existing crossings that restrict tidal flow. An alternatives analysis found that increasing the bridge span to eliminate the tidal restriction would encroach on Article 97 land to the north and result in salt marsh impacts. In addition, the Pleasant Street and Muddy Cove Lane intersection prohibits increasing the span to the south. While site constraints prevent the Project from eliminating the existing tidal restriction caused by the bridge crossing, the restriction will stay confined to the upstream portion of Muddy Cove Brook between the bridge and the existing dam east of County Street.

Invasive species will be managed in accordance with an Invasive Plant Management Strategy (IPMS) to be approved by MassDEP and DMF as recommended in their letter dated February 17, 2026 and included in the March 10, 2026 response to MassDEP's Administrative Completeness and Technical Deficiency Review .

In a letter dated February 17, 2026, DMF determined that spring and fall time of year (TOY) restrictions between March 15th to June 30th and September 1st to November 15th, as well as standard Best Management Practices (BMPs) for dewatering and sedimentation control, are required for the protection of American eel and alewife.

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An alternatives analysis was completed in accordance with 314 CMR 9.00. The bridge requires replacement as the no-build alternative would result in a safety hazard from continued deterioration of the bridge.

Based on a review of information provided by the applicant, MassDEP finds that this project complies with the standards described under 314 CMR 9.06. Public notice was provided in the Taunton Daily Gazette on January 27, 2026, and in the MEPA Environmental Monitor on February 11, 2026. No comment letters were received during the public comment period.

Therefore, based on information currently in the record, MassDEP grants a WQC for this project subject to the following conditions to maintain water quality, to minimize impact on waters and wetlands, and to ensure compliance with appropriate state law. The Department further certifies in accordance with 314 CMR 9.00 that there is reasonable assurance the project or activity will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law. Finally, the Department has determined that upon satisfying the conditions and mitigation requirements of this approval, the project provides a level of water quality necessary to protect existing uses and accordingly finds that the project to be implemented satisfies the Surface Water Quality Standards at 314 CMR 4.00.

Pursuant to 314 CMR 9.09(1)(d); 314 CMR 9.06(6)(a); 310 CMR 9.06(2); 314 CMR 9.07; 314 CMR 9.07(1); 314 CMR 9.09(7)(5)(c); 314 CMR 9.11; and 314 CMR 9.09(1)(e), the following Special Conditions are necessary to ensure that construction practices and stormwater controls are implemented in such a manner as to prevent degradation to wetlands and waters; ensure that practicable steps have been taken which will avoid and minimize impacts to wetlands and waters; minimize turbidity and sediment caused by construction activities; ensure that water quality is not degraded, and that biology of the waters are not negatively impacted by potential discharges; and/or maintain a record of the dredged material for reference and to ensure accountability in its transportation.

Those Special Conditions that require direct submittals to MassDEP for either review, or review and approval, are denoted by the following notation (Submittal) at the end of the condition and are summarized in Attachment A. In addition, those conditions with the (Submittal) designation shall be included in the Special Provisions and, as applicable, reviewed at the Pre-Construction Meeting.

1. All work shall be performed in accordance with the following documents and plans:

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a. Application for Water Quality Certification. Prepared by BETA Group, Inc. on behalf of the Town of Dighton, dated January 19, 2026, with cover letter and attachments. 401 WQC Filing Number: 26-WW11-0001-APP.

b. Plans entitled: "Bridge No. D-08-002 (CV1), PCN/WQC Plan Set". Sheets 1 through 8. Prepared by BETA Group, Inc. Dated January 20, 2026, last revised January 30, 2026.

c. MassDEP Administrative Completeness and Technical Deficiency Review. 401 WQC Transmittal No: 26-WW11-0001-APP (Minor Fill). Pleasant Street Bridge Replacement Project over Muddy Cove Brook, Dighton, Massachusetts. Dated February 11, 2026.

d. Responses to MassDEP Administrative Completeness and Technical Deficiency Review, with attachments. Prepared by BETA Group, Inc. on behalf of the Town of Dighton. 401 Water Quality Certification, Minor Fill Project Certification. Pleasant Street Bridge Replacement Project, Water Quality Certification (26-WW11-0001-APP). Dated March 10, 2026.

Pre-Construction

2. A qualified **Fluvial Geomorphologist** (FGM) with a minimum of five years of relevant professional experience in stream replication and restoration projects shall be employed to oversee all LUO restoration activities as proposed in the WQC application and approved herein. The name, contact information, and qualifications of the FGM shall be provided to MassDEP for review and approval with a copy to the Dighton Conservation Commission prior to the Pre-Construction Meeting required in Condition 5. The FGM shall either attend the Pre-Construction Meeting or a separate virtual or onsite meeting with MassDEP, MassDOT, and the Contractor prior to any LUO restoration work. **(Submittal)**

3. One individual with at least three years of experience with construction period erosion and sedimentation controls shall be employed to be responsible for Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) inspections (CP/PP Inspector). The name, contact information, and qualifications of the CP/PP Inspector shall be provided to MassDEP for review and approval with a copy to the

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Dighton Conservation Commission prior to the Pre-Construction Meeting required in Condition 5. **(Submittal)**

4. Prior to the Pre-Construction Meeting required in Condition 5, the applicant shall provide MassDEP with the name and contact information of the Resident Engineer (RE) responsible for ensuring that all work complies with the conditions of this WQC. **(Submittal)**

5. A minimum of 21 days prior to the start of ground disturbance or vegetation clearing, MassDOT shall contact MassDEP to schedule an onsite Pre-Construction Meeting to review the approved plans and terms and conditions of this WQC. The RE, the construction contractor (Contractor), the CP/PP Inspector, a representative from the MassDOT Environmental Section and/or the District Environmental Engineer shall attend the Pre-Construction Meeting. **No work shall commence prior to the Pre-Construction Meeting.**

6. MassDEP shall be copied on applicable submittals to the U.S. Army Corps of Engineers (USACE). These include but are not limited to: Self-Verification Notification Form (SVNF); Pre-Construction Notification (PCN); Work-Start Notification Form; Mitigation Work-Start Notification Form; and Compliance Certification Form. The Work-Start Notification Form shall be submitted at least 14 days before the anticipated start of work and the Compliance Certification Form shall be submitted within 30 days following the completion of the authorized work. **(Submittal)**

7. A CP/PP shall be developed and implemented as required by 314 CMR 9.06(6)(a)8. A minimum of 14 days prior to the start of work, the proponent shall submit the CP/PP for review and approval. If the U.S. Environmental Protection Agency (EPA) Construction General Permit (CGP) applies, the Stormwater Pollution Prevention Plan (SWPPP) may serve as the CP/PP, providing it includes the measures required to be in the CP/PP per these Special Conditions, in addition to the measures specifically required by the CGP. Any subsequent changes to the approved CP/PP (defined herein as including the construction period SWPPP if applicable) must be approved by MassDEP. **(Submittal)**

8. Training regarding erosion and sedimentation controls is required. The CP/PP Inspector and any other relevant personnel responsible for erosion and sedimentation controls shall complete the EPA CGP Inspector Training, or other training that meets the CGP requirements, as well as complete a comprehensive review of the approved CP/PP.

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Proof of completion of the training shall be submitted to MassDEP prior to the start of work. **(Submittal)**

9. The CP/PP shall identify, but shall not be limited to, staging and laydown areas in relation to LUO and Salt Marsh, proposed dewatering methods and locations, proposed stockpile locations and their proximity to catch basins or other drainage conveyances that discharge to wetland resource areas, and the location of construction-period erosion and sedimentation controls. Stockpiles shall be located no less than 25 feet from LUO, Salt Marsh, catch basins, or other drainage conveyances that discharge to LUO or Salt Marsh.

10. A minimum of 14 days prior to the start of work, the proponent shall submit a Control of Water Plan for review and approval. The Plan shall include a description of proposed methods to isolate and dewater work areas within streams while maintaining stream flow, including but not limited to the method of isolation (e.g., steel sheeting or sandbag cofferdam), dewatering methods and locations and specifications for stream bypass systems as applicable. The Control of Water Plan shall include a plan depicting LUO and Salt Marsh boundaries, and the location of all relevant methods and materials which shall be located within the LUO impact area approved herein. The plan shall meet the requirements of the CP/PP and be specific to the Project. Dewatering and stream bypasses shall be conducted under the supervision of the RE or other project staff with knowledge of these practices and comply with the applicable conditions identified herein. **(Submittal)**

11. Prior to the start of work, approved erosion and sedimentation control measures shall be installed per the approved CP/PP and as applicable, the manufacturer specifications. Erosion and sedimentation control measures may consist of, but are not limited to, silt fence, staked straw bales, silt/turbidity curtains, compost filter tubes, etc.

12. Prior to the Pre-Construction Meeting, the boundaries of LUO and Salt Marsh shall be re-flagged where they are within 50 feet of the limits of work. All boundary markers, once in place, shall remain in place throughout construction until all disturbed surfaces have been permanently stabilized. Boundary markers shall be fully evaluated annually and refreshed where needed. Implementation of and compliance with this requirement shall be documented by the RE. All construction personnel shall be made aware of these markers.

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13. Prior to any work within the 1% annual chance of flooding zone within Project limits, including mobilization or storage of equipment and materials, a Flood Contingency Plan shall be submitted to MassDEP for review and approval that includes at a minimum the following information and provisions: **(Submittal)**

    a. The RE and/or Contractor shall monitor the National Weather Service forecast daily, and upon issuance of a flood watch or flood warning for the Project area, the Flood Contingency Plan shall be implemented.

    b. Upon implementation of the Flood Contingency Plan, all construction equipment and materials located below the Base Flood Elevation (BFE) shall be removed and placed in an upland location above the BFE and outside of LUO.

    c. Anchored stationary equipment may remain below the BFE if demonstrated to be required and upon written approval from MassDEP. In the event semi-stationary equipment cannot be feasibly removed before the arrival of the storm, they shall be adequately secured and MassDEP shall be notified prior to the storm.

    d. A requirement to inspect and maintain all erosion and sedimentation controls, and stabilize all exposed soils as needed below the BFE prior to the storm shall be included.

    e. A plan depicting at a minimum, but not limited to LUO boundaries, the Project limits, and the BFE boundary based on ground elevations shall be included.

    f. Staff and materials must be available 24 hours per day, seven days per week to implement the Flood Contingency Plan. The name, affiliation, title, email address, and phone number of each person responsible for implementing the Flood Contingency Plan shall be included.

    g. No work shall commence until the flood watch or flood warning has ended, all areas below the BFE have been inspected, and erosion and sedimentation controls are maintained as needed.

14. An Invasive Plant Management Strategy (IPMS) shall be submitted to MassDEP and DMF for review and approval prior to the Pre-Construction Meeting. The IPMS shall be implemented as approved. **(Submittal)**

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15. If needed, use of herbicides to control invasive species shall be implemented in accordance with the approved IPMS and with the following requirements:

    a. Herbicides shall only be applied by a Licensed Applicator;

    b. Only herbicides registered with the Massachusetts Pesticide Board Subcommittee shall be applied to the targeted area/species;

    c. The manufacturer's label directions must be followed, in addition to any conditions imposed by other state or local authorities;

    d. Herbicide application shall use no more than the minimum application rate to accomplish removal of the target species; and

    e. Applicants must obtain a BRP WM04 Herbicide Permit from the MassDEP Wetlands Program Dredge Unit before performing herbicide application in waterbodies (traditionally lakes and ponds).

16. A minimum of 21 days prior to the start of demolition work, a Demolition Plan shall be submitted for review and approval describing how the existing bridge will be demolished and what measures will be taken to ensure that demolition material, including but not limited to any pollutants, construction debris, toxic or hazardous substances, and airborne dust, is properly contained and does not enter Muddy Cove Brook. **(Submittal)**

Construction Period

17. No more than **941 sf** of permanent and **545 sf** of temporary impacts to LUO shall occur. No more than **98.2 cy** of dredging in LUO shall occur. There shall be **0 sf** of permanent and **0 sf** of temporary impacts to Salt Marsh. All work shall avoid unapproved impacts to Salt Marsh and LUO.

18. Under the direction of the CP/PP Inspector, inspection and maintenance of erosion and sediment controls in active work areas may be performed by both the Contractor and RE or other MassDOT project staff. Maintenance is the responsibility of the Contractor; however, the permittee shall be ultimately responsible for erosion and sedimentation control failure. The RE and/or contractor shall immediately notify MassDEP and the

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Dighton Conservation Commission if any unauthorized discharges to LUO or Salt Marsh occur.

19. CP/PP inspections shall occur at least once every seven calendar days and within 24 hours of a storm event that produces 0.5 inches or more of rain within a 24-hour period, or at a more stringent frequency if the CP/PP requires.

20. Copies of CP/PP Inspection and Maintenance Log Forms shall be submitted to MassDEP within 14 days upon request.

21. Disturbed areas shall be stabilized immediately after activities have permanently ceased or will be temporarily inactive for 14 or more calendar days. The installation of stabilization measures shall be implemented as soon as practicable, but no later than 14 calendar days after disturbed areas have been inactive.

22. Work within LUO shall be conducted in low or no-flow conditions to the extent practicable. Notice shall be provided to MassDEP and the Dighton Conservation Commission within 24 hours prior to the commencement of dewatering. Dewatering methods and location(s) shall be approved by the RE or other project staff with knowledge of these practices prior to use to ensure consistency with the approved Control of Water Plan, and shall be documented in the CP/PP. There shall be no discharge of untreated dewatered stormwater or groundwater to LUO or Salt Marsh. Any discharges shall be visibly free of sediment.

23. Additional erosion and sedimentation control materials shall be stored on-site at all times for emergency and routine replacement. Materials shall be kept covered, dry, and accessible at all times. The CP/PP Inspector and RE shall be responsible for anticipating the need for and installation of additional erosion and sedimentation controls and shall have the authority to require additional erosion control measures to protect wetland resource areas beyond what is shown on the plans if field conditions or professional judgment dictate that additional protection is necessary.

24. The Contractor shall monitor the National Weather Service forecast for updates, and upon issuance of a flood watch for the 1% annual chance of flooding zone, shall implement the Flood Contingency Plan referenced in Condition 13.

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25. Any storm drains with potential to receive discharge from stockpiled materials or construction operations shall be managed to inhibit the inflow of sediment while not increasing the likelihood of roadway flooding during periods of precipitation. The CP/PP shall specify measures to implement this. Filter fabric stretched under storm drain inlet grates are not acceptable for this purpose.

26. Stockpiles shall be located no less than 25 feet from LUO, Salt Marsh, catch basins, or other drainage conveyances that discharge to LUO or Salt Marsh.

27. The contractor shall have designated washout areas for concrete equipment that will be comprised of impermeable material and sized to contain project concrete wastes and wash water. Concrete wash out areas shall be located no less than 50 feet from LUO, Salt Marsh and catch basins or other drainage conveyances that discharge directly or indirectly to LUO or Salt Marsh.

28. Refueling, washing, and cleaning of vehicles and other construction equipment shall not take place within 50 feet of LUO or Salt Marsh and any wash water shall be contained such that it does not drain toward LUO or Salt Marsh. MassDEP shall explicitly approve in writing any deviation to this condition for oversized stationary vehicles.

29. The contractor shall have spill containment kits on site. In the event of a release of fuels and/or oils, the local fire department, MassDEP Emergency Response and MassDEP Wetlands Program Highway Unit shall be immediately contacted, and in addition, the MassDEP Bureau of Waste Site Cleanup shall be notified per the requirements of the Massachusetts Contingency Plan, 310 CMR 40.0000.

30. No in-water, silt-producing work shall occur during the Time of Year (TOY) restrictions between the dates of March 15 to June 30 and September 1 to November 15. Work may proceed during the fall TOY period, provided a Water Control/Diversion Plan (i.e. Control of Water Plan referenced in Condition 10) is approved by DMF.

31. Construction vehicles and equipment shall not enter LUO or Salt Marsh unless authorization is provided by way of this permit or amendment. The Contractor shall use equipment with boom reach capabilities and other measures to avoid inadvertent impacts to jurisdictional resource areas as a result of excavation, riprap placement, and/or bridge/pier demolition materials.

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32. A temporary shielding or containment system shall be in place beneath the bridge structure prior to removal to prevent debris from falling into the water below. In the event any debris accidentally enters Muddy Cove Brook, it shall be immediately retrieved. Notice shall be provided to MassDEP if debris enters the river and that it has been removed with photo-documentation (if practicable) submitted by email.

Stream Mitigation

33. The FGM shall oversee all LUO restoration. Placement of streambed materials shall take place in no- or low-flow conditions. The Control of Water Plan required in Condition 10 shall include measures to create no-flow conditions for this work such as a pump bypass system or other dewatering method, if needed. Placement of streambed materials during greater than low-flow conditions shall require a placement plan, with a narrative describing turbidity control measures, submitted to MassDEP for review and approval.

34. A minimum of 14 days prior to installation of the streambed materials, the FGM shall meet with the contractor to determine the suitability of stockpiled streambed material for reuse and whether there is sufficient stockpiled material to complete streambed restoration.

35. Water shall be slowly introduced back into the restored and dewatered LUO work areas as to not cause erosion and sedimentation. This work shall be overseen by the FGM. The FGM shall provide final approval of the streambed restoration upon re-wetting of banks and removal of water controls (photographs will suffice unless otherwise determined by the FGM).

36. Upon completion of the LUO restoration, the FGM shall provide photographs and a summary of the completed work to MassDEP and the Dighton Conservation Commission. **(Submittal)**

37. MassDEP reserves the right to determine the success or failure of the LUO restoration areas and reserves the right to require additional measures deemed necessary to promote success.

Post-Construction

38. All temporary erosion and sedimentation controls shall be removed at the conclusion of work once the surrounding area has achieved final stabilization.

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39. Compost or mulch used as an erosion or sedimentation control may be spread evenly in upland areas at a depth of no more than two inches and shall not be spread in Salt Marsh or LUO.

General Conditions

40. Any proposed plan changes or amendment requests, as well as any required submittals shall be sent by email for review and approval to heidi.davis@mass.gov and jaime.iannelli@mass.gov. **(Submittal)**

41. This WQC remains in effect for the same duration as the Section 404 permit that requires it.

42. No Special Condition set forth herein shall be construed or operate to prohibit MassDEP from taking enforcement against the Town of Dighton or its contractors for any failure to comply with the terms and requirements of this WQC.

43. No activity authorized by this WQC may begin prior to expiration of the 21-day appeal period, or until a final decision is issued by MassDEP in the event of an appeal.

Failure to comply with this Certification is grounds for enforcement, including civil and criminal penalties, under MGL Ch. 21 §42, MGL Ch. 21A §16, or other possible actions/penalties as authorized by the General Laws of the Commonwealth.

This Certification does not relieve the applicant of the obligation to comply with other appropriate state or federal statutes or regulations.

NOTICE OF APPEAL RIGHTS

a.) Appeal Rights and Time Limits

Certain persons shall have a right to request an adjudicatory hearing concerning certifications by MassDEP when an application is required: (a) the applicant or property owner; (b) any person aggrieved by the decision who has submitted written comments during the public comment period; (c) any ten (10) persons of the Commonwealth pursuant to M.G.L. c.30A where a group member has submitted written comments during the public comment period; or (d) any governmental body or private organization with a mandate to protect the environment which has submitted written comments during the public comment period. Any person aggrieved, any ten (10) persons of the Commonwealth, or a governmental body or private

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organization with a mandate to protect the environment may appeal without having submitted written comments during the public comment period only when the claim is based on new substantive issues arising from material changes to the scope or impact of the activity and not apparent at the time of public notice. To request an adjudicatory hearing pursuant to M.G.L. c.30A, § 10, a Notice of Claim must be made in writing, provided that the request is made by certified mail or hand delivery to MassDEP, with the appropriate filing fee specified within 310 CMR 4.10 along with a DEP Fee Transmittal Form within twenty-one (21) days from the date of issuance of this Certificate, and addressed to:

Case Administrator
Department of Environmental Protection
100 Cambridge Street, 9th Floor
Boston, MA 02114

A copy of the request shall at the same time be sent by certified mail or hand delivery to the Department of Environmental Protection at:

Department of Environmental Protection
Wetlands Program, Highway Unit
100 Cambridge Street, 8th floor
Boston, MA 02114

b.) Contents of Hearing Request

A Notice of Claim for Adjudicatory Hearing shall comply with MassDEP's Rules for Adjudicatory Proceedings, 310 CMR 1.01(6), and shall contain the following information pursuant to 314 CMR 9.10(3):

1. the 401 Certification Transmittal Number;
2. the complete name of the applicant and address of the project;
3. the complete name, address, and fax and telephone numbers of the party filing the request, and, if represented by counsel or other representative, the name, fax and telephone numbers, and address of the attorney;
4. if claiming to be a party aggrieved, the specific facts that demonstrate that the party satisfies the definition of "aggrieved person" found at 314 CMR 9.02;
5. a clear and concise statement that an adjudicatory hearing is being requested;
6. a clear and concise statement of (1) the facts which are grounds for the proceedings, (2) the objections to this Certificate, including specifically the manner in which it is alleged

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to be inconsistent with the MassDEP's Water Quality Regulations, 314 CMR 9.00, and (3) the relief sought through the adjudicatory hearing, including specifically the changes desired in the final written Certification; and

7. a statement that a copy of the request has been sent by certified mail or hand delivery to the applicant, the owner (if different from the applicant), the conservation commission of the city or town where the activity will occur, the Department of Conservation and Recreation (when the certificate concerns projects in Areas of Critical Environmental Concern), the public or private water supplier where the project is located (when the certificate concerns projects in Outstanding Resource Waters), and any other entity with responsibility for the resource where the project is located.

c.) Filing Fee and Address

The hearing request along with a DEP Fee Transmittal Form and a valid check or money order payable to the Commonwealth of Massachusetts in the amount of one hundred dollars ($100) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
Commonwealth Master Lockbox
PO Box 4062
Boston, MA 02211

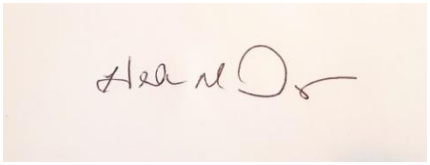
The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. MassDEP may waive the adjudicatory hearing filing fee pursuant to 310 CMR 4.06(2) for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file an affidavit setting forth the facts believed to support the claim of undue financial hardship together with the hearing request as provided above.

Should you have any questions relative to this permit, please contact myself or Jaime Iannelli at heidi.davis@mass.gov and jaime.iannelli@mass.gov.

Very truly yours,

The Commonwealth of Massachusetts
Department of Environmental Protection

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Phone: 617-292-5500



Heidi M. Davis
Highway Unit Supervisor

Ecc: DEP SERO – Maissoun Reda
USACE – Dan Vasconcelos
USACE – Kevin Newton
USACE via email – cenae-r-ma@usace.army.mil
Dighton Conservation Commission – Lisa Caledonia
Town of Dighton – Tom Ferry
MassDOT – Courtney Walker
MassDOT – Lily Collins
MassDOT – Greg Frazier
BETA Group, Inc – Laura Krause
BETA Group, Inc – Tyler Drew
BETA Group, Inc – Todd Warzecki
MA DMF – Amanda Davis

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Attachment A

Pre-Construction Submittal Checklist

Pleasant Street Bridge Replacement Project over Muddy Cove Brook
Dighton, Massachusetts

This checklist must be completed prior to the start of work. Note that some conditions require that information be submitted a specific number of days prior to the start of work or the pre-construction meeting.

Pre-Construction Meeting Date: _____

Condition	Required Submittal	Due Date	Date Submitted	Date Approved
PRE-CONSTRUCTION SUBMITTAL REQUIREMENTS				
2	Name, contact information, and qualifications of the FGM, including specific experience and years to meet requirement	Prior to Pre-Construction Meeting		
3	Name, contact information, and qualifications of the CP/PP Inspector, including specific experience and years to meet requirement	Prior to Pre-Construction Meeting		
4	Name and contact information of the RE	Prior to Pre-Construction Meeting		
6	USACE Work-Start Notification Form	14 days prior to work start		
7	CP/PP	14 days prior to work start		

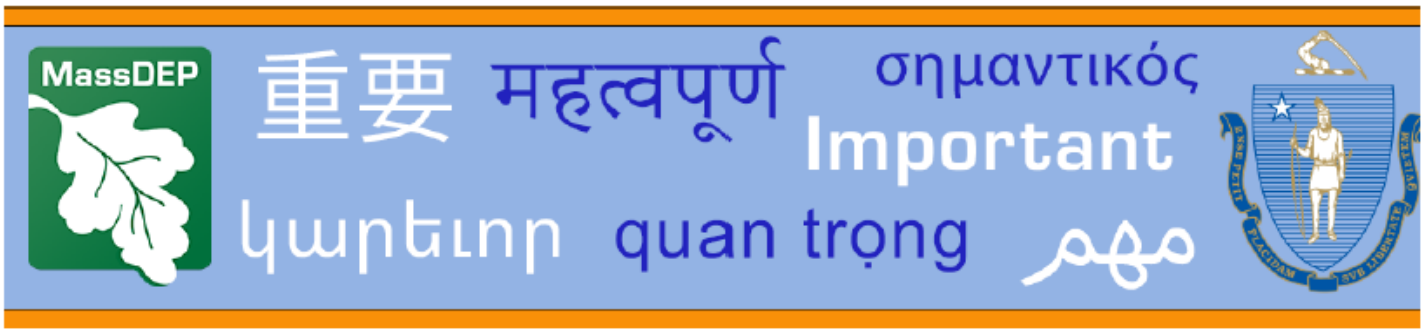
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8	Verification of SWPPP Training	Prior to work start		
10	Control of Water Plan	14 days prior to work start		
13	Flood Contingency Plan	Prior to any work within 1% annual chance of flooding zone		
14	Invasive Plant Management Strategy (IMPS)	Prior to Pre-Construction Meeting		
16	Demolition Plan	21 days prior to work start		

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Communication for Non-English-Speaking Parties

This document is important and should be translated immediately.

If you need this document translated, please contact MassDEP's Director of Environmental Justice at the telephone number listed below.

Español Spanish

Este documento es importante y debe ser traducido inmediatamente. Si necesita traducir este documento, póngase en contacto con el Director de Justicia Ambiental de MassDEP (*MassDEP's Director of Environmental Justice*) en el número de teléfono que figura más abajo.

Português Portuguese

Este documento é importante e deve ser traduzido imediatamente. Se você precisar traduzir este documento, entre em contato com o Diretor de Justiça Ambiental do MassDEP no número de telefone listado abaixo.

繁體中文 Chinese Traditional

本文檔很重要，需要即刻進行翻譯。
如需對本文檔進行翻譯，請透過如下列示電話號碼與 MassDEP 的環境司法總監聯絡。

简体中文 Chinese Simplified

这份文件非常重要，需要立即翻译。
如果您需要翻译这份文件，请通过下方电话与 MassDEP 环境司法主任联系。

Ayisyen Kreyòl Haitian Creole

Dokiman sa a enpòtan epi yo ta dwe tradui l imedyatman. Si w bezwen tradui dokiman sa a, tanpri kontakte Direktè. Jistis Anviwònmantal MassDEP a nan nimewo telefòn ki endike anba a.

Việt Vietnamese

Tài liệu này và quan trọng và phải được dịch ngay. Nếu quý vị cần bản dịch của tài liệu này, vui lòng liên hệ với Giám Đốc Phòng Công Lý Môi Trường của MassDEP theo số điện thoại được liệt kê bên dưới.

ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះមានសារៈសំខាន់
ហើយគប្បីត្រូវត្រូវបានបកប្រែភ្លាមៗ។
ប្រសិនបើអ្នកត្រូវការអោយឯកសារនេះបកប្រែ
សូមទាក់ទងនាយកផ្នែកយុត្តិធម៌បរិស្ថានរបស់
MassDEPតាមរយៈលេខទូរស័ព្ទដែលបានរាយដូចខាងក្រោម។

Kriolu Kabuverdianu Cape Verdean

Es dokumentu sta important i tenki ser tradusidu immediatamenti. Se nho ta presisa ke es dokumentu sta tradisidu, por favor kontata O Diretor di Justisia di Environman di DEP ku es numero di telifoni menxionadu di baixo.

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Русский Russian

Это чрезвычайно важный документ, и он должен быть немедленно переведен. Если вам нужен перевод этого документа, обратитесь к директору Департамента экологического правосудия MassDEP (MassDEP's Director of Environmental Justice) по телефону, указанному ниже.

العربية Arabic

هذه الوثيقة مهمة وتجب ترجمتها على الفور.

إذا كنت بحاجة إلى ترجمة هذه الوثيقة، فيرجى الاتصال بمدير العدالة البيئية في MassDEP على رقم الهاتف المذكور أدناه.

한국어 Korean

이 문서는 중대하므로 즉시 번역되어야 합니다.
본 문서 번역이 필요하신 경우, 매사추세츠 환경보호부의 "환경정의" 담당자 분께 문의하십시오. 전화번호는 아래와 같습니다.

հայերեն Armenian

Այս փաստաթուղթը կարևոր է, և պետք է անհապաղ թարգմանել այն:
Եթե Ձեզ անհրաժեշտ է թարգմանել այս փաստաթուղթը, դիմեք Մասաչուսեթսի շրջակա միջավայրի պահպանության նախարարության (MassDEP) Բնապահպանական հարցերով արդարադատության ղեկավարին (Director of Environmental Justice)՝ ստորև նշված հեռախոսահամարով

فارسی Farsi Persian

این نوشتار بسیار مهمی است و باید فوراً ترجمه شود.
اگر نیاز به ترجمه این نوشتار دارید لطفاً با مدیر عدالت محیط زیستی MassDEP در شماره تلفن ذکر شده زیر تماس بگیرید.

Français French

Ce document est important et doit être traduit immédiatement. Si vous avez besoin d'une traduction de ce document, veuillez contacter le directeur de la justice environnementale du MassDEP au numéro de téléphone indiqué ci-dessous.

Deutsch German

Dieses Dokument ist wichtig und muss sofort übersetzt werden. Wenn Sie eine Übersetzung dieses Dokuments benötigen, wenden Sie sich bitte an MassDEP's Director of Environmental Justice *(Direktor für Umweltgerechtigkeit in Massachusetts)* unter der unten angegebenen Telefonnummer.

Ελληνική Greek

Το έγγραφο αυτό είναι πολύ σημαντικό και πρέπει να μεταφραστεί αμέσως. Αν χρειάζεστε μετάφραση του εγγράφου αυτού, παρακαλώ επικοινωνήστε με τον Διευθυντή του Τμήματος Περιβαλλοντικής Δικαιοσύνης της Μασαχουσέτης στον αριθμό τηλεφώνου που αναγράφεται παρακάτω

Italiano Italian

Questo documento è importante e deve essere tradotto immediatamente. Se hai bisogno di tradurre questo documento, contatta il Direttore della Giustizia Ambientale di MassDEP al numero di telefono sotto indicato.

Język Polski Polish

Ten dokument jest ważny i powinien zostać niezwłocznie przetłumaczony. Jeśli potrzebne jest tłumaczenie tego dokumentu, należy skontaktować się z dyrektorem ds. sprawiedliwości środowiskowej MassDEP pod numerem telefonu podanym poniżej.

हिन्दी Hindi

यह दस्तावेज महत्वपूर्ण है और इसका अनुवाद तुरंत किया जाना चाहिए। यदि आपको इस दस्तावेज का अनुवाद कराने की जरूरत है, तो कृपया नीचे दिए गए टेलीफोन नंबर पर MassDEP के पर्यावरणीय न्याय निदेशक से संपर्क करें।

From: Davis, Heidi (DEP)
To: Laura Krause
Cc: Walker, Courtney L. (DOT); Collins, Lily R. (DOT); Frazier, Greg (DOT); Tyler Drew; Todd Warzecki; townadmin@dighton-ma.gov; Walker, Jaime (DEP)
Subject: MassDOT Project 613636 – 401 WQC Filing 26-WW11-0001-APP – Condition Coordination
Date: Friday, May 1, 2026 4:22:28 PM
Attachments: image001.png
image002.png

Good afternoon, Laura –

In response to your email of April 23, 2026, Condition #30 of the Dighton Pleasant Street Bridge Replacement Project over Muddy Cove Brook WQC issued on April 8, 2026, is revised as follows:

No in-water, silt-producing work shall occur during the Time of Year (TOY) restrictions between the dates of March 15 to June 30 and September 1 to November 15. Work may proceed behind dewatered cofferdams during the spring TOY provided that: cofferdams are installed prior to March 15th; migratory pathways are not impacted; and a Water Control/Sediment Control Plan is approved by DMF. Work may proceed during the fall TOY period provided that: a Water Control/Diversion Plan (i.e. Control of Water Plan referenced in Condition 10) is approved by DMF; and cofferdams are installed before September 1st.

Please let me know if you need anything further.

Best,
Heidi

Heidi M. Davis
Senior Wetland Analyst
Highway Unit Supervisor
Wetlands Program, Boston Office
MassDEP
339-225-2332

From: Laura Krause <LKrause@BETA-Inc.com>
Sent: Thursday, April 23, 2026 12:59 PM
To: Davis, Heidi (DEP) <heidi.davis@mass.gov>; Iannelli, Jaime (DEP) <Jaime.Iannelli@mass.gov>
Cc: Walker, Courtney L. (DOT) <Courtney.L.Walker@dot.state.ma.us>; Collins, Lily R. (DOT)

<lily.r.collins@dot.state.ma.us>; Frazier, Greg (DOT) <Greg.Frazier@dot.state.ma.us>; Tyler Drew <tdrew@beta-inc.com>; Todd Warzecki <TWarzecki@BETA-Inc.com>; Ralph Vitacco <townadmin@dighton-ma.gov>
Subject: MassDOT Project 613636 – 401 WQC Filing 26-WW11-0001-APP – Condition Coordination

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Heidi and Jaime,

Thank you for issuing the 401 Water Quality Certification (WQC) for the Pleasant Street Bridge Replacement Project over Muddy Cove Brook in Dighton, MA.

MassDOT and the Town of Dighton have reviewed the conditions included in the WQC. The only condition we would like DEP to consider revising is Condition 30, relating to the Time of Year (TOY) restrictions recommended by the MA Division of Marine Fisheries (DMF), as complying with this condition will result in a significant increase in construction duration. Based on coordination with MA DMF (attached), work on the abutments can proceed during the spring TOY restriction, subject to specific conditions. The Project team respectfully requests the DEP revise Condition 30 as follows:

"No in-water, silt-producing work shall occur during the Time of Year (TOY) restrictions between the dates of March 15 to June 30 and September 1 to November 15. Work may proceed behind dewatered cofferdams during the spring TOY, provided that cofferdams are installed prior to March 15th, migratory pathways are not impacted, and a Water Control/Sediment Control Plan is approved by DMF. Work may proceed during the fall TOY period, provided a Water Control/Diversion Plan (i.e. Control of Water Plan referenced in Condition 10) is approved by DMF, and cofferdams are installed before September 1st. "

Please let us know if you have any questions or concerns regarding this request.
Many thanks
Laura

Laura Krause
Associate – Permitting & Eco. Services
BETA
IMPROVING COMMUNITIES TOGETHER

BETA Group, Inc.
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DOCUMENT A00842

MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER QUALITY CERTIFICATE

ADMINISTRATIVE COMPLETENESS AND TECHNICAL DEFICIENCY REVIEW

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Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection
Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey	**Kim Driscoll**	**Rebecca Tepper**	**Bonnie Heiple**
Governor	Lieutenant Governor	Secretary	Commissioner

February 10, 2026

Town of Dighton
979 Somerset Avenue
Dighton, Massachusetts 02715
Attn: Ralph Vitacco

RE: 401 Water Quality Certification
Administrative Completeness and Technical Deficiency Review
401 WQC Transmittal No: 26-WW11-0001-APP (Minor Fill)

AT: Pleasant Street Bridge Replacement Project over Muddy Cove Brook
Dighton, Massachusetts

Dear Mr. Vitacco:

The Massachusetts Department of Environmental Protection (MassDEP) Wetlands Program Highway Unit has completed its Administrative Completeness Review of the application for the above-referenced Water Quality Certification (WQC) application. The application requires proof of public notice in the Environmental Monitor per Section 24 of Chapter 79 of the Acts of 2014 to be administratively complete.

MassDEP has also completed its Technical Review of the above-referenced application and requests the following additional information:

General

1. Laydown and dewatering areas will need to be identified in the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) and Control of Water Plan that will be conditioned in the WQC. Given the space constraints at this site, MassDEP recommends identifying these areas during the design phase. Soil stockpiles should be located at least 50 feet away from resource areas, catch basins, or other drainage conveyances that discharge to resource areas.

2. The project proposes to cut sheet piles two feet below the mudline and leave them in place after construction. If sheet piles are not needed operationally or for stabilization following the pier removal, full removal of the sheet piles from Land under the Ocean (LUO) is required upon stabilization of the area.

3. MassDEP understands consultation with the Massachusetts Division of Marine Fisheries (DMF) was initiated to determine specific Time of Year (TOY) restrictions. Please provide the resulting correspondence from DMF when available.

LUO Impacts and Restoration

4. As proposed, riprap coincides with salt marsh flags SM2-105 and SM2-106 in the southeast quadrant and placement will likely temporarily and/or permanently alter salt marsh. Proposed riprap is also in close proximity to salt marsh flags SM3-101 and SM3-102 in the northeast quadrant. The limit of riprap should be pulled back from salt marsh to the extent possible.

5. BETA's Hydraulic and Scour Analysis Report recommends installing an unsupported pile length that can sustain an abutment scour depth for the 50-year storm. Given this recommendation, is there a need for the additional scour countermeasures in the form of riprap or modified rockfill around the proposed abutments and abutment corners, and if so, can the volume be reduced? A reduction in the amount of proposed modified rockfill at the abutment corners would reduce potential inadvertent impacts to salt marsh and could provide opportunity for restoration.

6. A cross-section of the streambed restoration area specifying the thickness of the riprap and natural streambed layers along the proposed abutments should be provided.

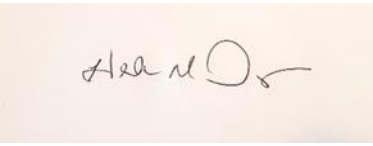
Stormwater

7. While site restrictions limit the opportunity for stormwater control measures, please evaluate plantings and/or seeding (i.e. vegetated filter strips) within the Pleasant Street and/or Muddy Cove Lane rights of way to slow flow velocities and promote infiltration which would improve existing conditions. While no credit for removal of total suspended solids would apply, the vegetation would provide some treatment to stormwater runoff prior to discharging into Muddy Cove Brook.

Upon receipt of all requested supplemental information, MassDEP has 30 calendar days to issue or deny a certification.

Should you have any questions relative to this letter, please contact me at heidi.davis@mass.gov or Jaime Iannelli at jaime.iannelli@mass.gov.

Sincerely,



Heidi M. Davis
Highway Unit Supervisor

Ecc: DEP SERO – Maissoun Reda
USACE – Dan Vasconcelos
USACE – Kevin Newton
Dighton Conservation Commission – Lisa Caledonia
Town of Dighton – Tom Ferry
MassDOT – Courtney Walker
MassDOT – Lily Collins
MassDOT – Greg Frazier
BETA Group, Inc – Todd Warzecki
BETA Group, Inc – Laura Krause
BETA Group, Inc – Tyler Drew

IMPROVING COMMUNITIES TOGETHER

MEMORANDUM

Date:	March 10, 2026	Job No.:	22.10326.16
To:	Heidi Davis (MassDEP)		
Cc:	Courtney Walker (MassDOT) Greg Frazier (MassDOT) Tyler Lewis (MassDEP) Ryan Hale (MassDEP) Todd Warzecki (BETA) Matt Shute (BETA) Dan Vasconcelos (USACE) Kevin Newton (USACE) Lisa Caledonia (Dighton Conservation Commission) Tom Ferry (Town of Dighton)		
From:	Laura Krause, Associate (BETA) Tyler Drew, Scientist (BETA)		
Subject:	**Response to MassDEP Comments** **Pleasant Street Bridge Replacement Project** **Water Quality Certification (26-WW11-0001-APP)**		

INTRODUCTION

The purpose of this memorandum is to provide responses to comments issued by Heidi Davis of the Massachusetts Department of Environmental Protection (MassDEP) via email on February 11, 2026 on the 401 Water Quality Certification application for the Pleasant Street Bridge over Muddy Cove Brook Replacement Project (the Project) in Dighton, Massachusetts. The comments provided by MassDEP are quoted below in *italics*, with BETA's responses provided in **bold**.

COMMENTS

1. *Laydown and dewatering areas will need to be identified in the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) and Control of Water Plan that will be conditioned in the WQC. Given the space constraints at this site, MassDEP recommends identifying these areas during the design phase. Soil stockpiles should be located at least 50 feet away from resource areas, catch basins, or other drainage conveyances that discharge to resource areas.*

   BETA: The exact location of laydown, stockpile, and dewatering areas will be determined by the Contractor in the field based on Site conditions. Given the Site constraints, dewatering operations will be required to be conducted within the limits of the roadway, due to the proximity to resources and protected land. Specific dewatering methods may include the use of frac tanks; however, the specific method will be selected by the contractor. The dewatering plan will be prepared by the contractor and will be submitted to DEP for approval prior to construction.

   These Site constraints also result in there being no potential staging and stockpiling locations at the Site located at least 50 feet away from nearby Resource Areas. However, the Contractor could locate stockpiles within the Pleasant Street roadway in areas that are greater than 25 feet from nearby Resource Areas (i.e., Salt Marsh). To provide adequate protection of these

Resource Areas in close proximity to the Project, supplemental controls will be required for onsite stockpiles. These supplemental stockpile controls will be contractor-designed and will be submitted to DEP as part of the CP/PP. A plan sheet identifying conceptual locations for stockpiling and laydown has been added to the updated Permit Plan Set, and Item 756.1 of the Special Provisions (attached) has been updated to require implementation of supplemental controls.

2. *The project proposes to cut sheet piles two feet below the mudline and leave them in place after construction. If sheet piles are not needed operationally or for stabilization following the pier removal, full removal of the sheet piles from Land under the Ocean (LUO) is required upon stabilization of the area.*

   BETA: MassDOT requires metal sheet piles adjacent to new footings to be cut and remain in place. This requirement is necessary to not compromise the structural integrity of the new footing. Removal of the sheeting will likely shift or crack the new structure.

3. *MassDEP understands consultation with the Massachusetts Division of Marine Fisheries (DMF) was initiated to determine specific Time of Year (TOY) restrictions. Please provide the resulting correspondence from DMF when available.*

   BETA: As part of agency consultation, DMF recommended TOY restrictions from March 15th to June 30th and September 1st to November 15th. A copy of the DMF determination letter and clarification from DMF regarding what activities are allowed during the TOY restriction are attached. With the clarification provided by DMF, the Project is able to comply with the restrictions as stated.

4. *As proposed, riprap coincides with salt marsh flags SM2-105 and SM2-106 in the southeast quadrant and placement will likely temporarily and/or permanently alter salt marsh. Proposed riprap is also in close proximity to salt marsh flags SM3-101 and SM3-102 in the northeast quadrant. The limit of riprap should be pulled back from salt marsh to the extent possible.*

   BETA: The limit of riprap stone was reduced during the design phase of the Project to avoid impacts to the Salt Marsh. The proposed riprap stone is located in the same footprint as the existing limit of stone to provide adequate slope protection and stabilization against the tidal action of the Taunton River and Muddy Cove Brook.

   During the USACE review process, chain link fencing was added upgradient of the adjacent Salt Marshe, in addition to proposed sedimentation and erosion controls, to protect the Salt Marsh against construction impacts. These fencing locations have been added and clarified on the Permit Plan.

5. *BETA's Hydraulic and Scour Analysis Report recommends installing an unsupported pile length that can sustain an abutment scour depth for the 50-year storm. Given this recommendation, is there a need for the additional scour countermeasures in the form of riprap or modified rockfill around the proposed abutments and abutment corners, and if so, can the volume be reduced? A reduction in the amount of proposed modified rockfill at the abutment corners would reduce potential inadvertent impacts to salt marsh and could provide opportunity for restoration.*

   BETA: As shown on the submitted plans, the proposed abutment footings were designed below the abutment scour depth. Accordingly, no modified rockfill / riprap is proposed along the

abutment. The installation of riprap stone along the wingwalls is proposed within the existing limit of stone and necessary to provide the bridge with protection against tidal action and to stabilize the steep slopes to prevent erosion.

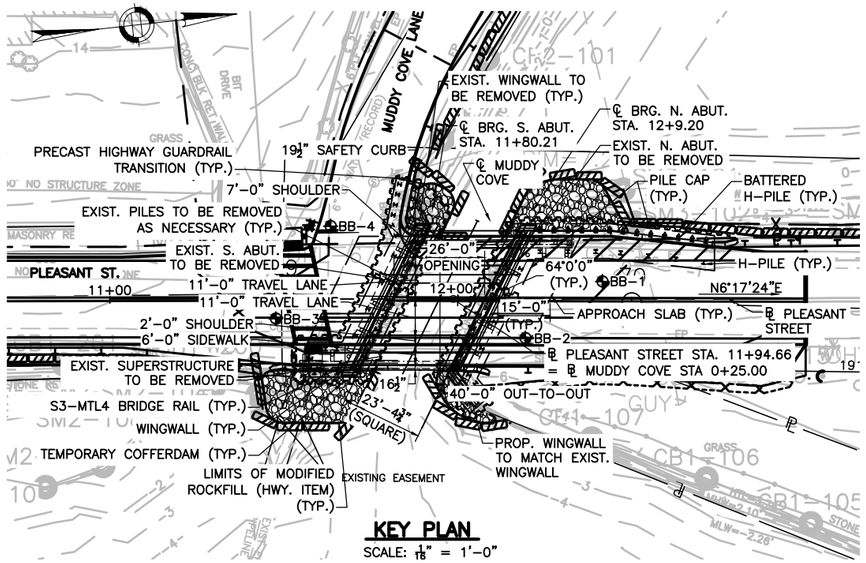
6. *A cross-section of the streambed restoration area specifying the thickness of the riprap and natural streambed layers along the proposed abutments should be provided.*

   BETA: A cross section along the abutment depicting the proposed streambed restoration areas has been added to Sheet 3b of the permit plans (See "Abutment" view). Note that no riprap is proposed along the abutment. Only gravel borrow and 24" of streambed restoration material are proposed within this area.

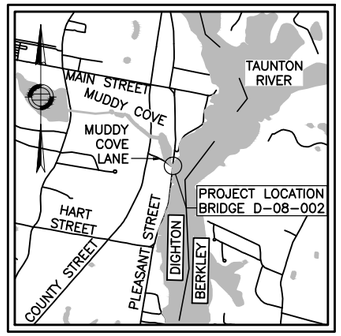
7. *While site restrictions limit the opportunity for stormwater control measures, please evaluate plantings and/or seeding (i.e. vegetated filter strips) within the Pleasant Street and/or Muddy Cove Lane rights of way to slow flow velocities and promote infiltration which would improve existing conditions. While no credit for removal of total suspended solids would apply, the vegetation would provide some treatment to stormwater runoff prior to discharging into Muddy Cove Brook.*

   BETA: Roadside slopes along the Pleasant Street roadway are narrow, providing little opportunity for stormwater treatment. A native salt-tolerant seed mix will be applied to the adjacent roadside slopes to provide attenuation and treatment of roadway runoff. Areas to be seeded are labeled on the Construction Plan (Sheet 2) of the plan set.

Attachments:
Revised Permit Plan Set
Revised Special Provision Item 756.1
DMF Determination Letter
DMF Coordination



KEY PLAN
SCALE: 1/16" = 1'-0"



LOCUS
SCALE: 1" = 2000'

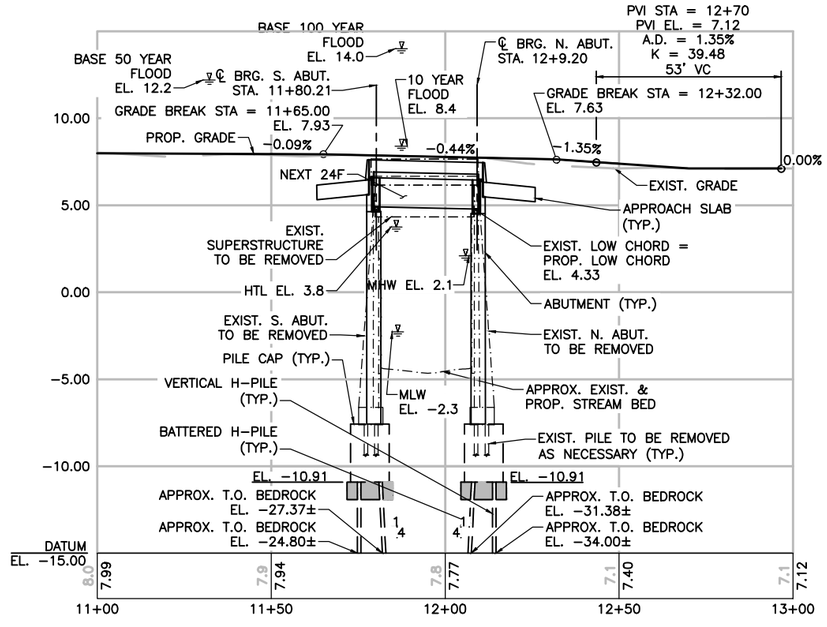
MUNICIPALITY
STREET_NAME-RT#

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	1	8
PROJECT FILE NO.	613636		

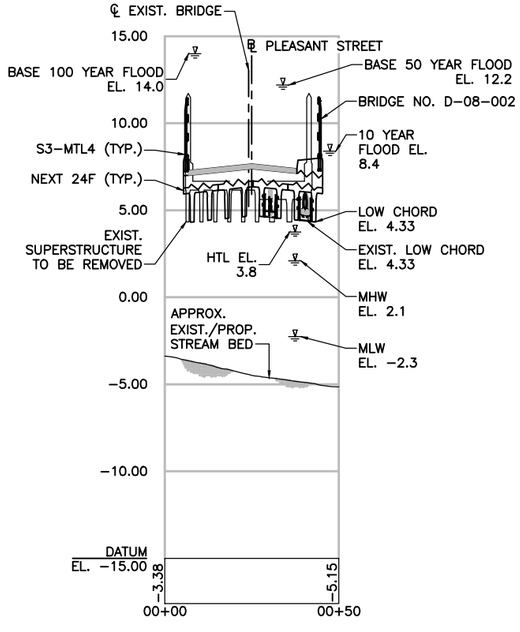
SHEET TITLE

SHEET INDEX

1 TITLE SHEET
2 CONSTRUCTION PLAN
3 GENERAL PLAN & ELEVATION
4 WINGWALL ELEVATIONS
5 DEMOLITION
6 CONSTRUCTION DETAILS
7 IMPACTS PLAN



PLEASANT STREET PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"



MUDDY COVE PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
10 JAN 2026
TODD M. WARZECKI
CIVIL ENGINEER
No. 47367
REGISTERED PROFESSIONAL ENGINEER

ISSUED FOR CONSTRUCTION

MassDOT Highway Division

PROJ_DESC
MUNICIPALITY
FACILITY_CARRIED
FEATURE_INTERSECTED

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

STATE BRIDGE ENGINEER

CHIEF ENGINEER

BETA GROUP, INC.
701 GEORGE WASHINGTON HIGHWAY,
LINCOLN, RI 02865

SHEET 1 OF 8 SHEETS BRIDGE NO. D-08-002 (CV1)

REVISED ON JANUARY 30, 2026

TITLE PAGE_RECOVER.DWG Plotted on 30-Jan-2026 11:08 AM

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 21+01 (MEET EXIST) TO 20+67 RT (MUDDY COVE LN)
TRANSITION TO BRIDGE RAIL STA 20+67 TO 20+33 LT
BRIDGE S3-TL4 GUARDRAIL STA 20+33 TO 12+77 LT
(MUDDY COVE LN AFTER 20+33 AND PLEASANT STREET AFTER 12+73)
TRANSITION TO BRIDGE RAIL STA 12+73 TO 13+07 LT
TRANSITION TO NCHRP 350 GUARDRAIL STA 13+07 TO 13+41 LT (MEET EXIST)

TANGENT END TREATMENT - TL-3 STA 10+00 TO 10+25 RT
GUARDRAIL - TL-3 (SINGLE FACED, DEEP POSTS) STA 10+25 TO 11+17 RT
TRANSITION TO BRIDGE RAIL STA 11+17 TO 11+51RT
BRIDGE S3-TL4 GUARDRAIL STA 11+51 TO 12+05 RT
TRANSITION TO BRIDGE RAIL STA 12+05 TO 12+39 RT
TRAILING ANCHORAGE STA 12+39 TO 12+49 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE UTILITY PLAN

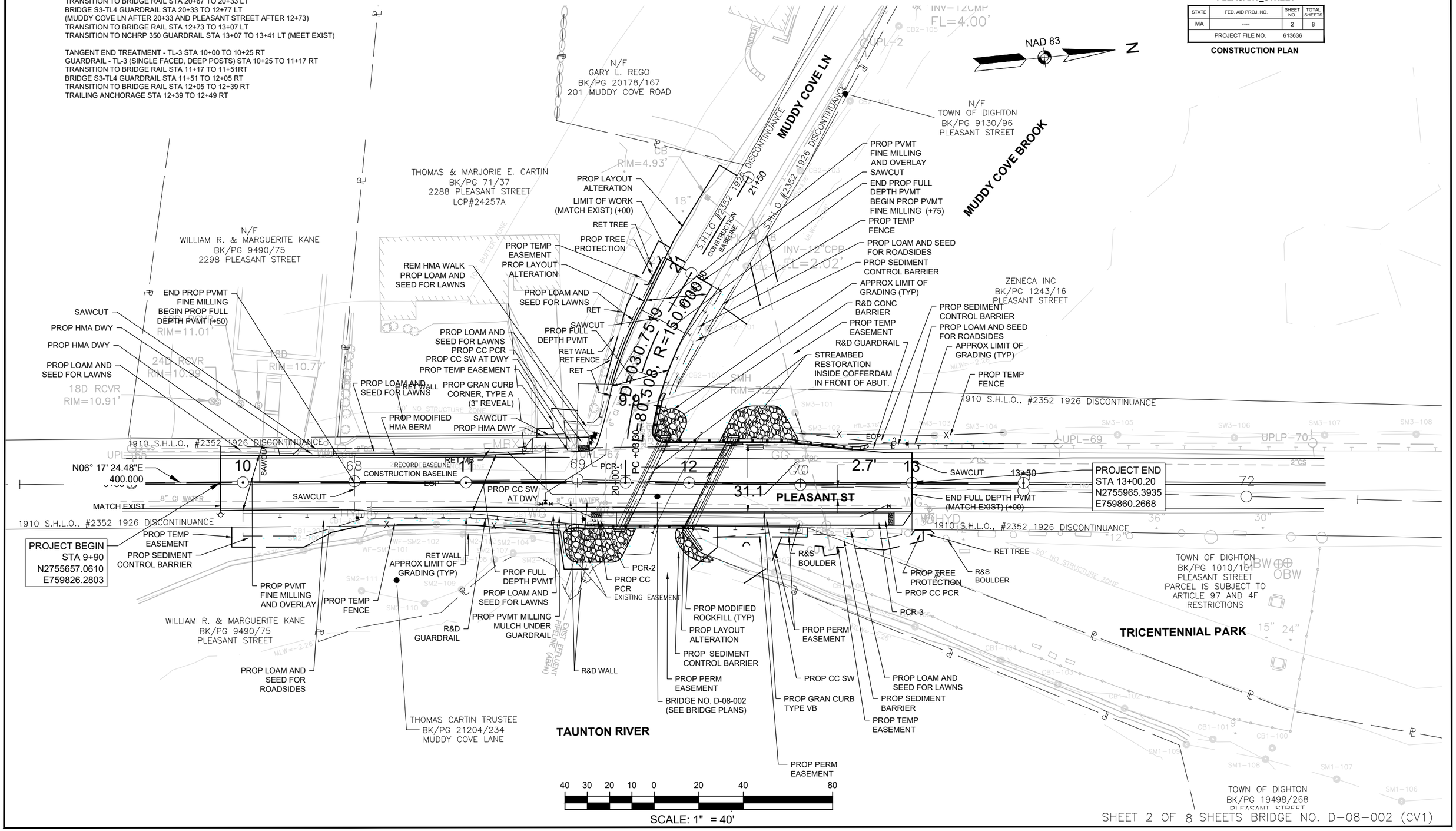
DRAINAGE DETAILS

NONE

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	2	8
PROJECT FILE NO.	613636		

CONSTRUCTION PLAN



DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	3A	8
PROJECT FILE NO.	613636		

GENERAL PLAN & ELEVATION 3A

Plotted on 14-Jan-2026 10:55 AM
GEN PLAN AND ELEVATION.DWG

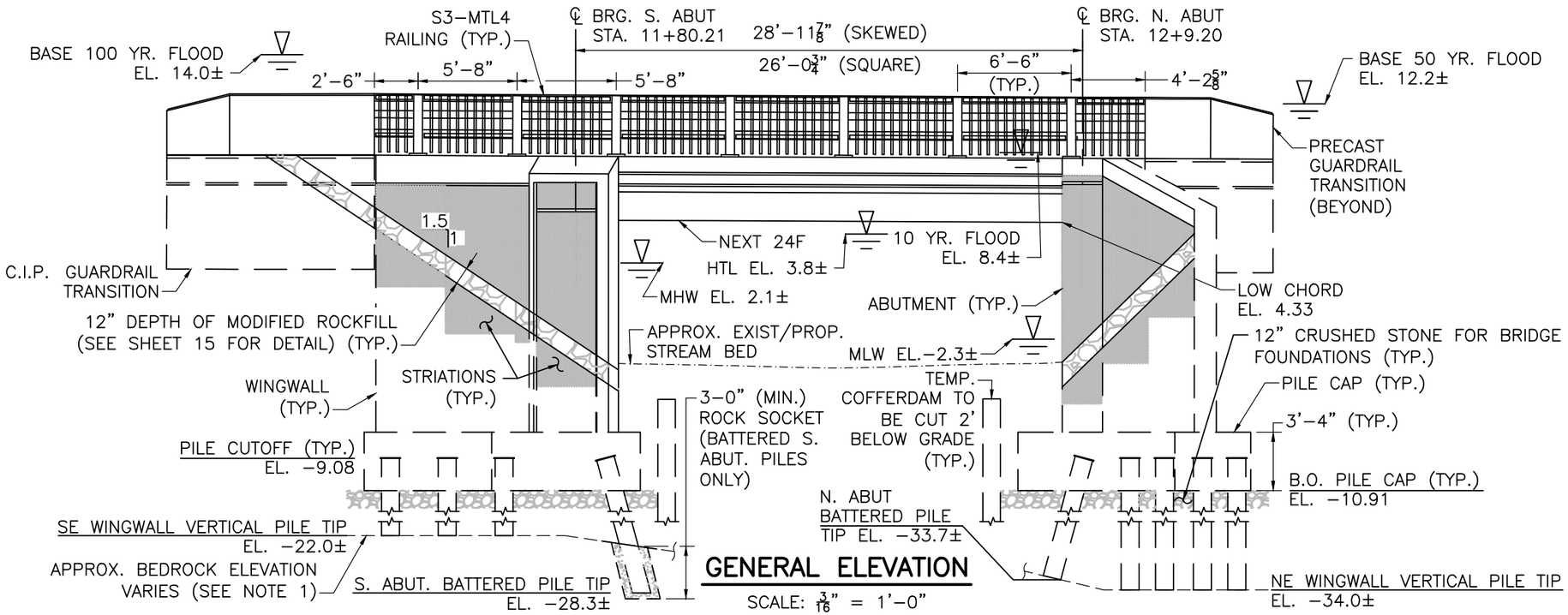
CB2–100
SMH
RIM=7.20'
SM3–101
EXIST. 6"ø WATER
EXIST. SEWER (ABANDONED)
MUDDY COVE LANE
RAILING R = 5'–0" SHALL BE INDIVIDUALLY FABRICATED WITH STEEL PLATES BUTT WELDED AND GROUND SMOOTH
BB–4
RELOCATED OHW (BY OTHERS)
EXIST. 2"ø GAS
RELOCATED UTILITY POLE (BY OTHERS)
6"ø WATER
APPROACH SLAB (TYP.)
EXIST. PILES TO BE REMOVED AS NECESSARY (TYP.)
WP 1
EXIST. S. ABUT. TO BE REMOVED
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
REMOVABLE PANEL FOR RELOCATED 2"ø GAS (TYP.)
BB–3
EXIST. SUPERSTRUCTURE TO BE REMOVED
TEMPORARY COFFERDAM (TYP.)
C.I.P. HIGHWAY RAIL TRANSITION
WINGWALL (TYP.)
2'–6"
(2) SPACES @ 5'–8" = 11'–4"
SM2–105
SM2–106
2'–6"
(3) SPACES @ 5'–0" = 15'–0"
EXIST. WINGWALL TO BE REMOVED (TYP.)
℄ BRG. S. ABUT. STA. 11+80.21
℄ MUDDY COVE
19½" SAFETY CURB
7'–0" SHOULDER
11'–0" TRAVEL LANE
40'–0" OUT–TO–OUT
12'–7¾" PHASE 2 WORK (SEE SHEET 6 FOR DETAILS)
20'–0"
26'–0" OPENING (SKEWED)
12+00
22'–0"
21'–9⅝"
6'–0" SDWK.
27'–4¼" PHASE 1 WORK (SEE SHEET 6 FOR DETAILS)
16½"
S3–MTL4 BRIDGE RAIL (TYP.)
(4) SPACES @ 6'–6" = 26'–0"
4'–2⅝"
23'–4¾" OPENING (SQUARE)
LIMITS OF MODIFIED ROCKFILL (HWY ITEM) (TYP.)
℄ BRG. N. ABUT. STA. 12+9.20
(10) SPACES @ 6'–6" = 65'–0"
173°29'25"
20'–0"
19'–9¾"
EXIST. N. ABUT. TO BE REMOVED
PILE CAP (TYP.)
64'0'0" (TYP.)
15'–0" (TYP.)
WP 2
℄ PLEASANT STREET STA. 11+94.66 = ℄ MUDDY COVE STA 0+25.00
BB–2
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
PARAFFIN JOINT SPACING
POST SPACING
PROP. WINGWALL TO MATCH EXIST. WINGWALL
PRECAST HIGHWAY GUARDRAIL TRANSITION (TYP.)
(3) SPACES @ 5'–0" = 15'–0"
3'–7"
POST SPACING
20'–2¼"
PARAFFIN JOINT SPACING
VERTICAL H–PILE (TYP.)
BATTERED H–PILE (TYP.)
BB–1
℄ PLEASANT STREET
N6°17'24"E
2"ø GAS (BY OTHERS)
8"ø WATER
PERMANENT EASEMENT
TEMPORARY EASEMENT
3
N: 2755884.185'
E: 759872.469'
EL: 6.642'
SPIKE
CB1–107
MEAN LOW WATER (ELEV. = –2.62')

GENERAL PLAN
SCALE: 3/16" = 1'–0"

##########	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

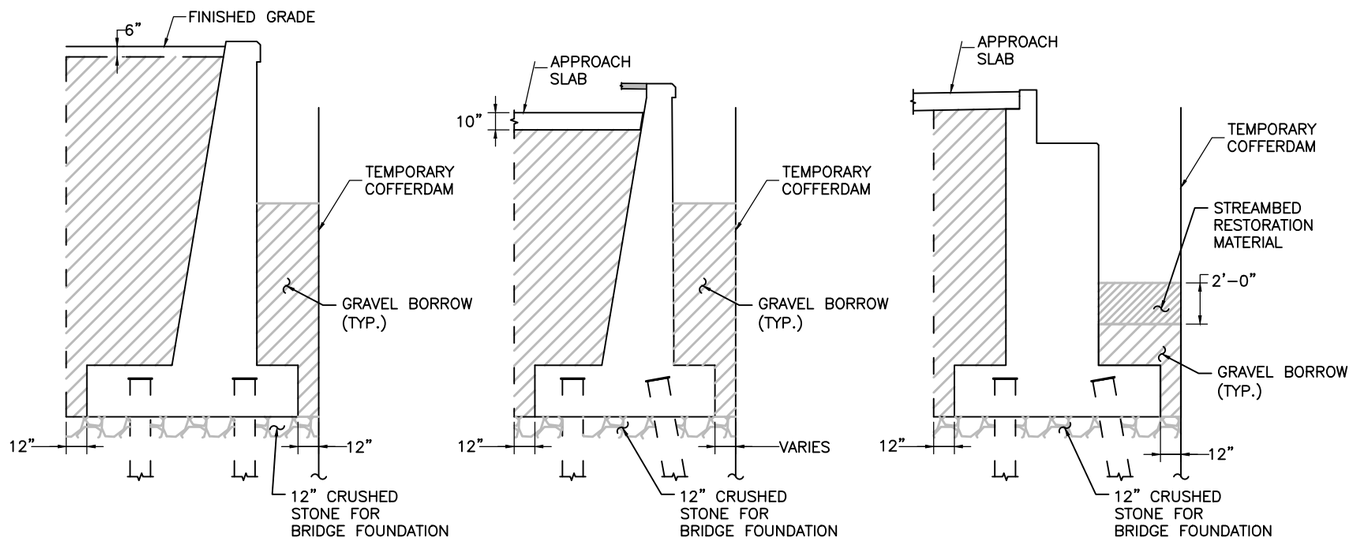
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

SHEET 3A OF 8 SHEETS BRIDGE NO. D–08–002 (CV1)



GENERAL ELEVATION

SCALE: $\frac{3}{16}$" = 1'–0"



TYPICAL WINGWALL | NW WINGWALL | ABUTMENT

LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES

NOT TO SCALE

DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-----	3B	8
PROJECT FILE NO.	613636		

GENERAL PLAN & ELEVATION 3B

##########	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

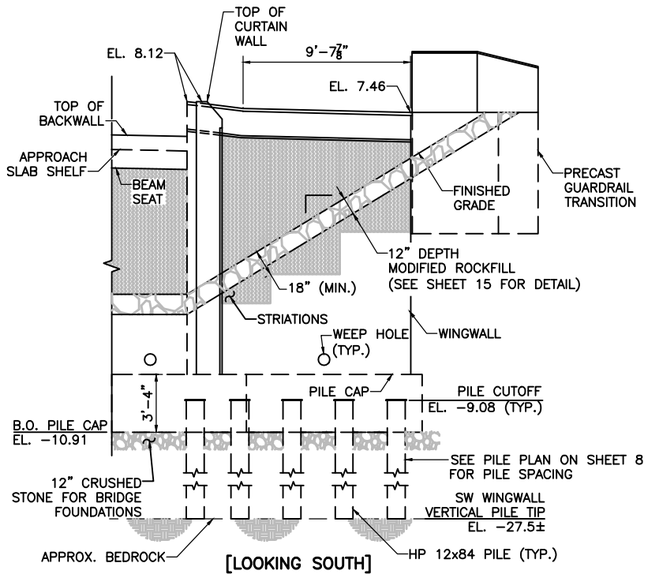
SHEET 3B OF 8 SHEETS BRIDGE NO. D–08–002 (CV1)

GEN PLAN AND ELEVATION.DWG Plotted on 5-Mar-2026 5:06 PM

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	4	8
PROJECT FILE NO.	613636		

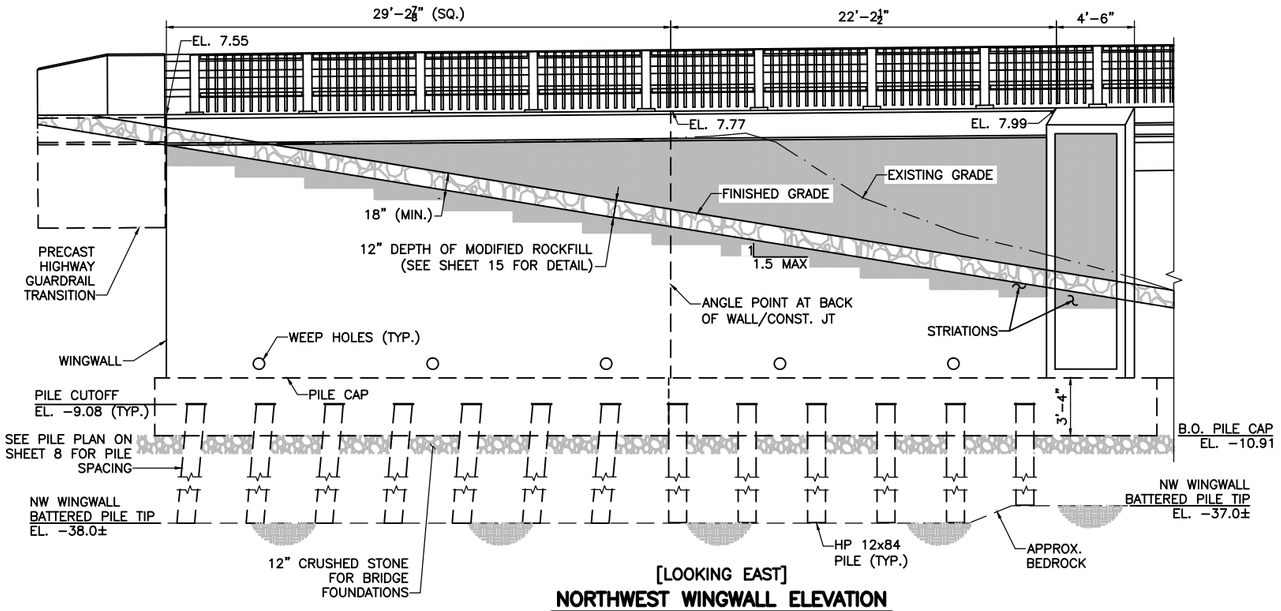
WINGWALL ELEVATIONS



[LOOKING SOUTH]

SOUTHWEST WINGWALL ELEVATION

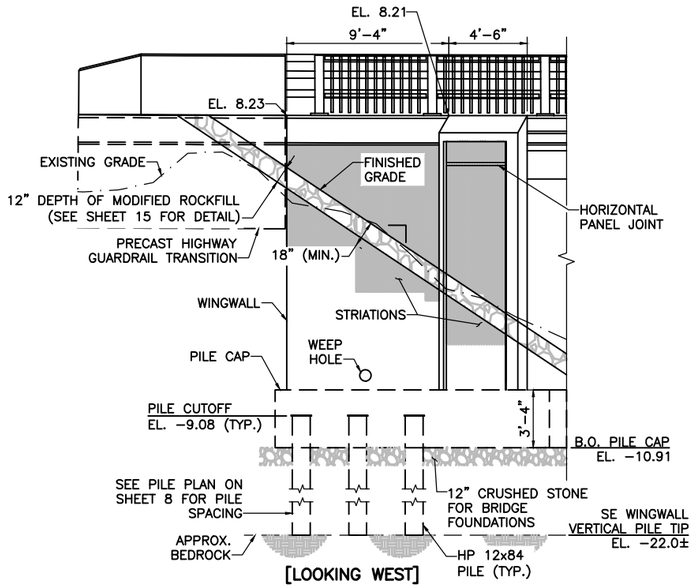
SCALE: ¼" = 1'-0"



[LOOKING EAST]

NORTHWEST WINGWALL ELEVATION

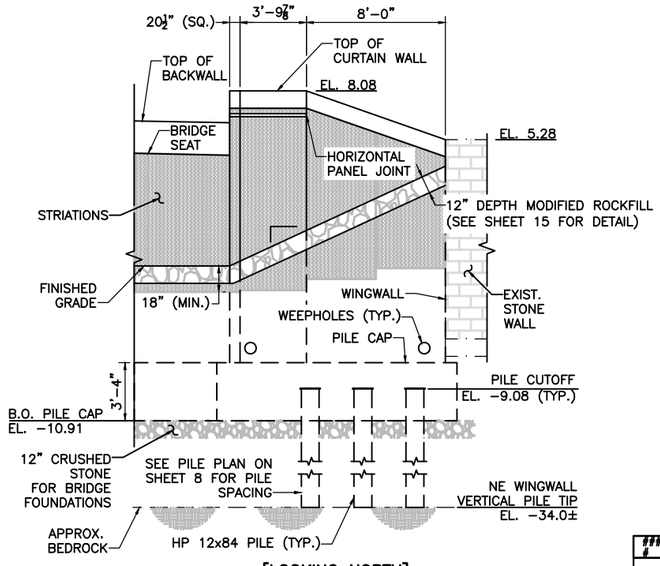
SCALE: ¼" = 1'-0"



[LOOKING WEST]

SOUTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"



[LOOKING NORTH]

NORTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'-0"

#	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

WINGWALL ELEVATIONS.DWG Plotted on 9-Dec-2025 11:07 AM

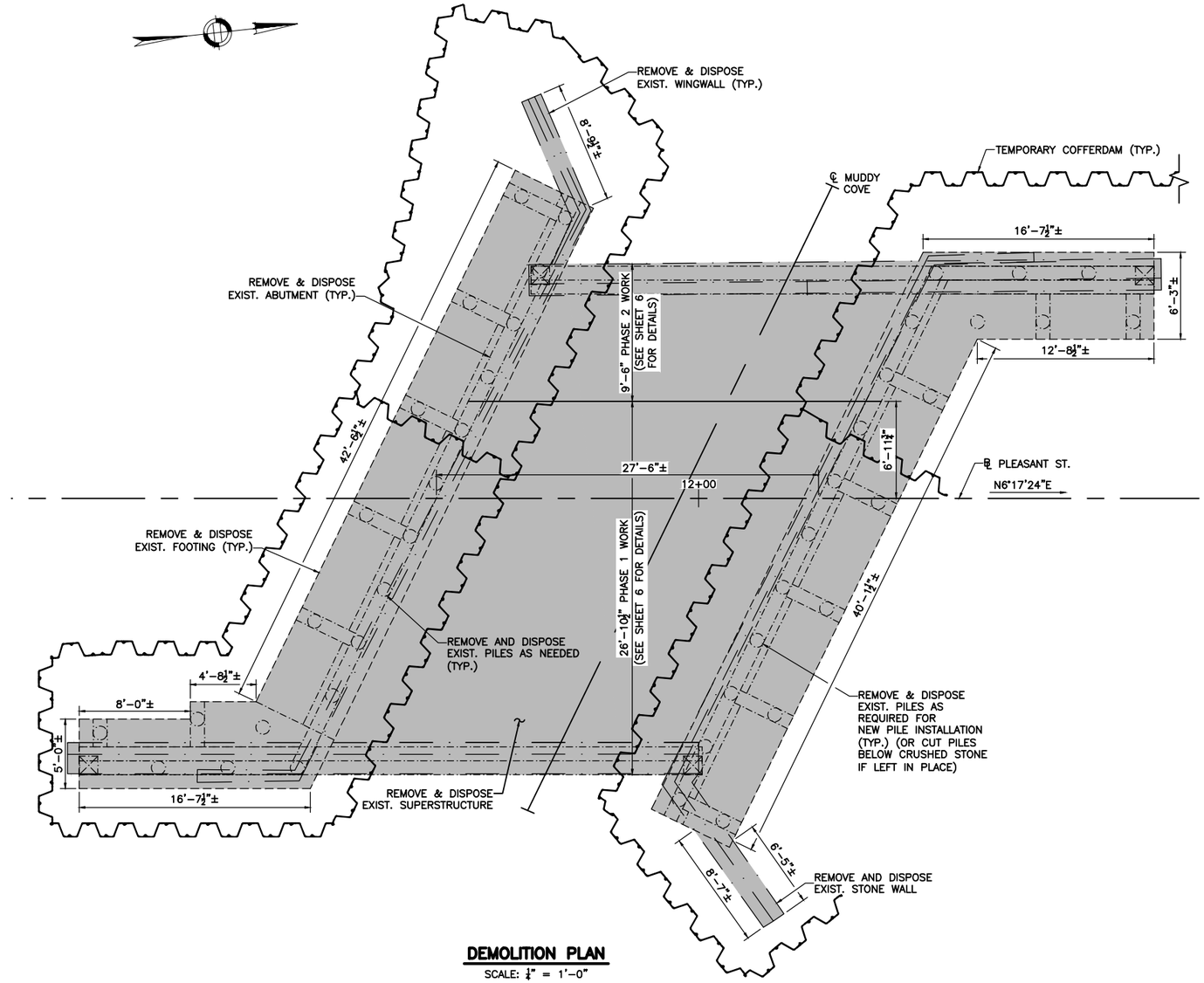
NOTES:

1. TEMPORARY COFFERDAM TO BE PUT IN PLACE ONCE EXISTING SUPERSTRUCTURE IS REMOVED

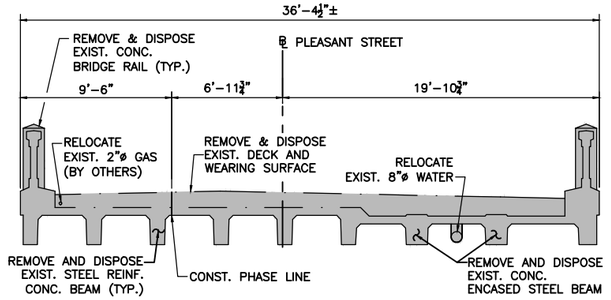
DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	5	8
PROJECT FILE NO.	613636		

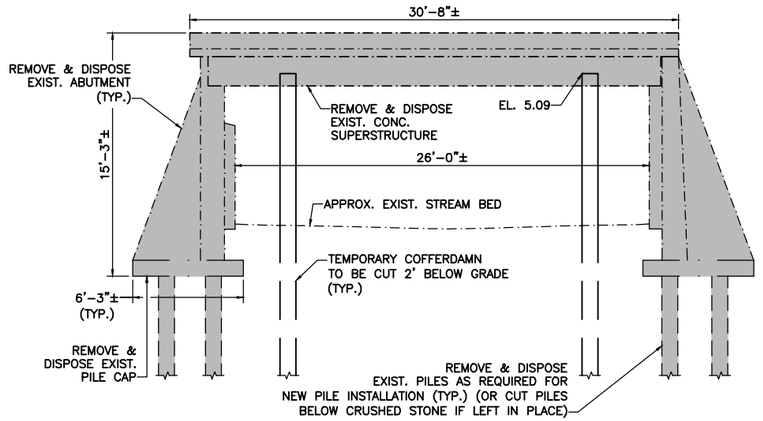
DEMOLITION



DEMOLITION PLAN
SCALE: ¼" = 1'-0"



DEMOLITION CROSS SECTION
SCALE: ¼" = 1'-0"



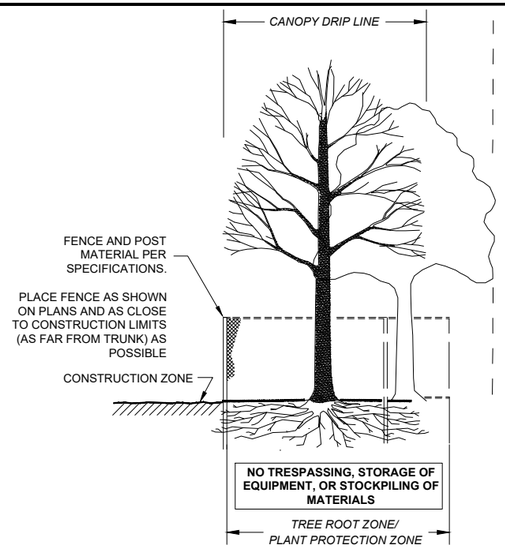
DEMOLITION LONGITUDINAL SECTION
SCALE: ¼" = 1'-0"

Plotted on 19-Jan-2026 1:49 PM
CONSTRUCTION DETAILS.DWG

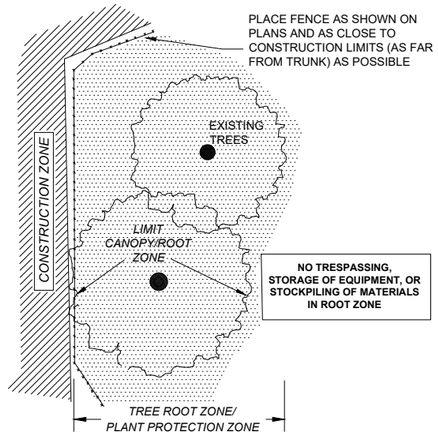
DIGHTON
PLEASANT_STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	6	8
PROJECT FILE NO.	613636		

CONSTRUCTION DETAILS

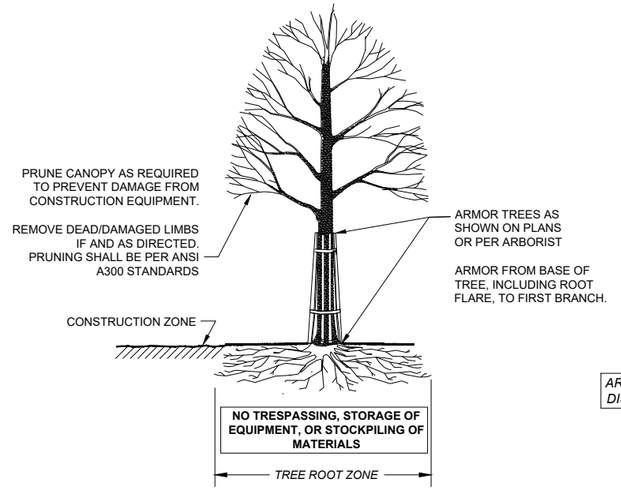


SECTION - FENCE PROTECTION OF ROOT ZONE



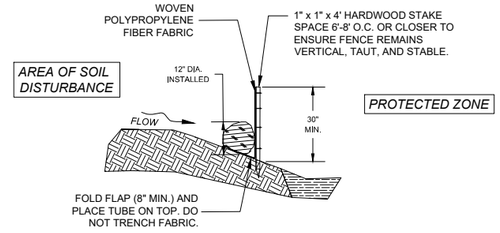
PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - ROOT ZONE
NOT TO SCALE



SECTION - TRUNK ARMORING & PRUNING

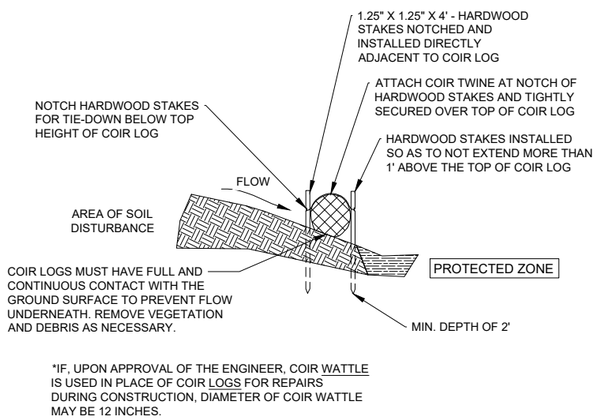
TREE PROTECTION - TRUNK
NOT TO SCALE



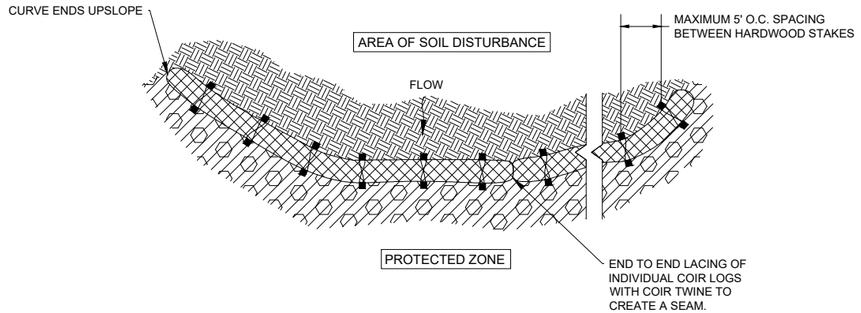
SECTION

COMPOST FILTER TUBE & SILT FENCE
NOT TO SCALE

MODIFIED ROCKFILL
NOT TO SCALE

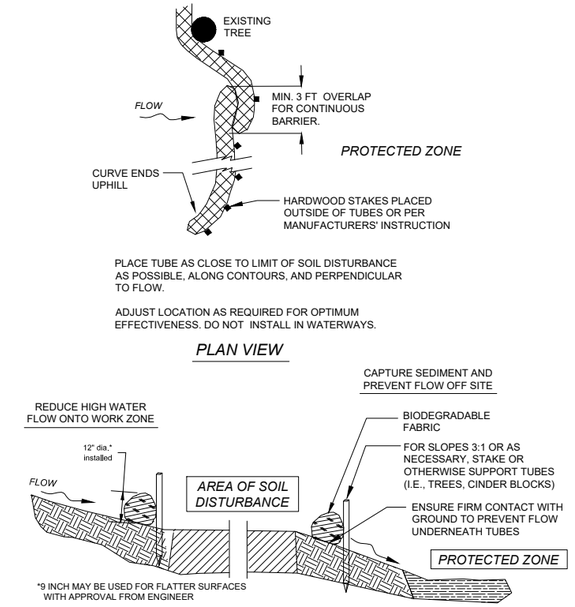


SECTION



PLAN VIEW

SEDIMENT BARRIER - COIR LOG
NOT TO SCALE



PLAN VIEW

SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE
NOT TO SCALE

DIGHTON
PLEASANT/STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	FED_AID_PROJ_#	7	8
PROJECT FILE NO.	613636		

PLAN TITLE

IMPACT LEGEND AND SUMMARY

HATCH	DESCRIPTION	AREA
	TEMPORARY IMPACT TIDAL WATERS OF THE US (TWOTUS)*	545± SF
	*DREDGING COINCIDENT WITH TEMPORARY TWOTUS IMPACTS	98.2± CY
	PERMANENT IMPACT TIDAL WATERS OF THE US (TWOTUS)	941± SF
	PERMANENT IMPACT HIGH-TIDE LINE (HTL)	109± LF
	TEMPORARY IMPACT HIGH-TIDE LINE (HTL)	102± LF
	SEDIMENT CONTROL	
	SNOW FENCING FOR ADDITIONAL SALT MARSH PROTECTION	

* TIDAL WATERS OF THE US

NOTES:

1. 100-YEAR FLOODPLAIN BOUNDARIES FROM FEMA FIRM PANELS 25005C0253H AND 25005C0021G, DATED JULY 16, 2015 AND JULY 16, 2014, RESPECTIVELY. BASE FLOOD ELEVATION (BFE) ONSITE IS 14 FEET AND THE SITE IS SITUATED ENTIRELY WITHIN THE FLOODZONE.
2. WETLAND RESOURCE AREAS LOCATED ON APRIL 20, 2025 BY BETA GROUP, INC AS SHOWN ON THESE PLANS.

NAD 83

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

N/F
TOWN OF DIGHTON
BK/PG 9130/96
PLEASANT STREET

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

MUDDY COVE LN

MUDDY COVE BROOK

FLOW
EBB

1910 S.H.L.O., #2352 1926 DISCONTINUANCE

CONSTRUCTION BASELINE

RECORD BASELINE

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

N06° 17' 24.48"E
400.000

PROJECT BEGIN
STA 13+00
N2755965.1947
E759860.2449

PLEASANT ST

TRICENTENNIAL PARK

TOWN OF DIGHTON
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TOWN OF DIGHTON
BK/PG 19498/268
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F

TAUNTON RIVER

THOMAS CARTIN TRUSTEE
BK/PG 21204/234
MUDDY COVE LANE

EXISTING EASEMENT

EXIST EFFLUENT PIPELINE (ABAN)

INV-12"CPP
EL=2.02'

SMH
RIM=7.26'

CB
RIM=4.93'

18D RCVR
RIM=11.01'

24D RCVR
RIM=10.99'

18D
RIM=10.77'

18D RCVR
RIM=10.91'

D=030.7519
L=80.508, R=150.000 PT +83.80

PT +03+30

EOP

MLW=-2.26'

MHW=2.10'

HTL=3.76'

TEMP HTL IMPACT = 10± LF

PERM HTL IMPACT = 15± LF

TEMP HTL IMPACT = 43± LF

PERM TWOTUS* IMPACT = 106± SF

TEMP TWOTUS* IMPACT = 36± SF

PERM TWOTUS* IMPACT = 358± SF

TEMP TWOTUS* IMPACT = 48± SF

PERM HTL IMPACT = 33± LF

SNOW FENCING FOR ADDITIONAL SALT MARSH PROTECTIONS

TEMP HTL IMPACT = 44± LF

TEMP TWOTUS* IMPACT = 170± SF

TEMP TWOTUS* IMPACT = 205± SF

PERM HTL IMPACT = 20± LF

TEMP HTL IMPACT = 4± LF

TEMP TWOTUS* IMPACT = 32± SF

PERM TWOTUS* IMPACT = 101± SF

TEMP HTL IMPACT = 31± LF

PERM HTL IMPACT = 41± LF

TEMP TWOTUS* IMPACT = 54± SF

PERM TWOTUS* IMPACT = 376± SF

DREDGING = 98.2± CY

SNOW FENCING FOR ADDITIONAL SALT MARSH PROTECTIONS

WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
PLEASANT STREET

CB2-105
CB2-104
CB2-103
CB2-102
CB2-101
CB2-100
SM3-101
SM3-102
SM3-103
SM3-104
SM3-105
SM3-106
SM3-107
CB1-207
CB1-206
CB1-205
CB1-200
CB1-107
CB1-106
CB1-105
CB1-104
CB1-103
CB1-102
CB1-101
CB1-100
WF-SM2-101
WF-SM2-102
SM2-103
SM2-104
SM2-105
SM2-106
SM2-107
SM2-108
SM2-109
SM2-110
SM2-111
SM1-109
SM1-108
SM1-107

40 30 20 10 0 20 40 80

SCALE: 1" = 40'

SHEET 7 OF 8 SHEETS BRIDGE NO. D-08-002 (CV1

613636_HDI(IMPACT PLAN)_UPDATE.DWG Plotted on 30-Jan-2026 11:03 AM

DIGHTON
PLEASANT/STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	---	8	8
PROJECT FILE NO. 613636			

SCM CONSTRAINTS PLAN

NAD 83

LEGEND

HATCH	DESCRIPTION
	WITHIN 50'
	LAND PROTECTED BY ARTICLE 97
	POTENTIAL STOCKPILE LOCATION*

*THE APPROXIMATE LOCATIONS OF STOCKPILE AND LAYDOWN AREAS ARE CONCEPTUAL AND FINAL LOCATIONS ARE TO BE DETERMINED BY THE CONTRACTOR. THE FINAL LOCATION OF THE PROPOSED STOCKPILE AND LAYDOWN AREAS/LOCATIONS WILL BE DEPICTED ON THE CONTRACTOR'S CP/PP.

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

PROJECT BEGIN
STA 13+00
N2755965.1947
E759860.2449

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

N/F
TOWN OF DIGHTON
BK/PG 9130/96
PLEASANT STREET

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
PLEASANT STREET

THOMAS CARTIN TRUSTEE
BK/PG 21204/234
MUDDY COVE LANE

TOWN OF DIGHTON
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TOWN OF DIGHTON
BK/PG 19498/268
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F

TRICENTENNIAL PARK

PLEASANT ST

MUDDY COVE LN

MUDDY COVE BROOK

TAUNTON RIVER

EXISTING EASEMENT

100' BUFFER ZONE

50' NO STRUCTURE ZONE

25' NO DISTURBANCE ZONE

1910 S.H.L.O., #2352 1926 DISCONTINUANCE

CONSTRUCTION BASELINE

RECORD BASELINE

N06° 17' 24.48"E
400.000

D=030°46'19"
R=150.00
T=83.30
L=80.588
PT #83.30

18D RCVR
RIM=11.01'

24D RCVR
RIM=10.99'

18D
RIM=10.77'

18D RCVR
RIM=10.91'

CB
RIM=4.93'

SMH
RIM=7.20'

INV-12"CPP
EL=2.02'

MLW=-2.26'

MHW=2.10'

HTL=3.76'

40 30 20 10 0 20 40 80

SCALE: 1" = 40'

SHEET 8 OF 8 SHEETS BRIDGE NO. D-08-002 (CV1)

613636_CONSTRAINTS 11X17_RECOVER.DWG Plotted on 9-Mar-2026 3:18 PM

756.1 CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL PLAN **LUMP SUM**

The work under this item shall consist of the preparation and implementation of a Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) as required by a regulatory agency. This Item is applicable to projects that are not subject to the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) required by the National Pollutant Discharge Elimination System (NPDES) and applicable Construction General Permit (CGP) issued by the U.S. Environmental Protection Agency (EPA).

The work under this item shall also include the preparation, submission and implementation of a Flood Contingency Plan. The plan shall address the potential need for the temporary relocation of construction and auxiliary equipment situated within the 1% annual chance of flooding zone to designated upland locations above the Base Flood Elevation during flood events. The Flood Contingency Plan shall address any additional MassDEP-required information requirements, as applicable. The Flood Contingency Plan shall be submitted to the Engineer for review and approval at the same time as the CP/PP.

The CP/PP, at a minimum, shall include the following:

- Project & Site Description
- Project Site Contact Information
    - This shall include the phone number for the Contractor Site Superintendent, Project Manager and CP/PP Inspector(s).
- Qualifications of the CP/PP Inspector and documentation of qualifications
    - At a minimum, relevant personnel responsible for erosion and sedimentation control inspections shall have completed the EPA's construction inspection training course and obtained a certificate confirming completion of the training module, or have completed a third-party stormwater course which covers the minimum topics listed in Part 6.3.b of the CGP.
- Reference to and information to address permit Special Conditions relevant to the CP/PP contents
- Construction Sequencing/Phasing
- Erosion Prevention, Sediment Control, and Best Management Practices (BMP s) to be implemented
- Supplemental stockpile protections, given the limited staging areas
- Maintenance measures and intended timeline to address maintenance and corrective actions for implemented Erosion Prevention Measures, Sediment Control Devices, and BMPs
- Anticipated inspection schedule and sample inspection report form
    - Use the EPA's Site Inspection Report Template found on the EPA's website.
- Site Plans
    - This shall depict, at minimum, the project limits, locations of construction phase erosion prevention measures, construction phase sedimentation control measures, limits of disturbance, staging and laydown areas, proposed dewatering locations and proposed stockpile locations. Depict existing jurisdictional wetland resource areas, drainage conveyances and stormwater treatment features.

The Contractor shall prepare the CP/PP, and update/revise as needed upon changes in site conditions, relevant project personnel, construction phase controls, schedule changes, revised work, regulations, and construction methodologies. The Contractor shall submit the CP/PP to the Engineer for approval at least thirty (30) days prior to prior to commencement of any project related activity that disturbs land, including clearing and grubbing. Submission of the CP/PP to a regulatory agency for review and approval may also be required by a Special Condition associated with a permit issued under the Wetlands Protection Act, or Section 401of the Clean Water Act and their implementing Regulations. It is the responsibility of the Contractor to ensure the CP/PP is submitted to reviewers in a timely manner to support the construction schedule.

It is the responsibility of the Contractor to comply with the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Army Corps of Engineers Section 404 Permit and other environmental permits applicable to the project, and to include in the CP/PP the methods and means necessary to comply with applicable conditions of said permits. The contractor will be required to include supplemental stockpile controls, given the proximity of the available areas for staging onsite to the onsite resource areas (Salt Marsh). The proposed supplemental controls will be subject to review and approval by MassDEP.

Inspection frequency shall be [*Special Provision Preparer shall insert frequency listed in permit*]. The inspections shall be performed by an individual that meets the qualifications specified in the permits and proof of the inspector's qualifications shall be included as an Appendix in the CP/PP. CP/PP inspection reports shall be completed and distributed to the Resident Engineer within 24-hours of each inspection. Special conditions associated with permits may also require submittal of reports to regulators at a certain frequency. Reports shall be maintained throughout the duration of the project. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector.

The Contractor is responsible for preparation of the CP/PP, inspections, and associated reports. The Standard Specifications require adequate erosion and sedimentation control for the duration of the Contract. All control measures must be properly selected, installed, and maintained in accordance with manufacturer specifications, good engineering practices, and MassDOT standard specifications and special provisions. Contractor must maintain all control measures and other protective measures in effective operating conditions in accordance with the additional Special Provisions herein. If periodic inspections or other information indicates a control has been used inappropriately or is no longer adequate, it is the responsibility of the Contractor to replace or modify the control for site conditions at no additional cost to the Department.

Method of Measurement and Basis of Payment

Item 756.1 will be measured at the contract unit price, lump sum, which shall include all work detailed above, including CP/PP and Flood Contingency Plan preparation, required revisions, revisions/addenda during construction, inspections and reports.

Work under this item shall include acceptable completion of the CP/PP, Flood Contingency Plan, site inspections, and revisions/amendments required during construction. In addition, any erosion

prevention or sediment control measures beyond those specified in bid items that are selected by the Contractor to facilitate and/or address the Contractor's schedule, methods and execution of the work or required to comply with permit requriements, including supplemental stockpile protections, shall be considered incidental to this item.

Payment of thirty (30) % of the contract price shall be made upon acceptance of the CP/PP and Flood Contingency Plan. Payment of forty (40) % of the contract price shall be made in equal installments over the expected duration of stormwater pollution prevention measures. Payment of the final thirty (30) % of the contract price shall be paid when final stabilization has been achieved (minimum of 75% total cover of disturbed vegetated areas with perennial ground cover).

The Commonwealth of Massachusetts
Division of Marine Fisheries
(617) 626-1520 | mass.gov/MarineFisheries

Maura T. Healey, *Governor* | Kimberly Driscoll, *Lt. Governor* | Rebecca L. Tepper, *Secretary* | Thomas K. O'Shea, *Commissioner* | Daniel J. McKiernan, *Director*

February 17, 2026

Dighton Conservation Commission
979 Somerset Avenue
Dighton, MA 02715

Dear Commissioners:

The Massachusetts Division of Marine Fisheries (MA DMF) has reviewed the Notice of Intent (NOI) by the Town of Dighton to replace the Pleasant Street Bridge within and over Muddy Brook Cove within the Town of Dighton. The proposed work includes installing water controls and dewatering the work area, demolishing the existing bridge, relocating utilities, installing bridge structures (wingwalls, abutments, decking), reconstructing the roadway and walkways, and installing scour protection. The project was reviewed with respect to potential impacts to marine fisheries resources and habitat.

The project site lies within mapped shellfish habitat for American oyster (*Crassostrea virginica*) and softshell clam (*Mya arenaria*). Waters within the project site have habitat characteristics suitable for these species. Land containing shellfish is deemed significant to the interest of the Wetlands Protection Act (310 CMR 10.34) and the protection of marine fisheries.

Muddy Cove Brook and the Taunton River have been identified by MA DMF as diadromous fish passage, migration, and/or spawning habitat for alewife (*Alosa pseudoharengus*), American eel (*Anguilla rostrata*), blueback herring (Alosa aestivalis), and white perch (*Morone americana*) [1].

MA DMF offers the following comments for your consideration:

- MA DMF recommends a spring time-of-year (TOY) restriction on in-water construction activities from March 15 to June 30 to protect eels during the spring glass eel immigration and alewives during the adult migration, spawning, egg incubation and juvenile development phases [2]. No in-water work should take place during this time.
- MA DMF recommends a fall time-of-year (TOY) restriction on in-water construction activities from September 1 to November 15 to protect sensitive life stages of the above diadromous species [2]. However, in-water work may be able to proceed during the fall TOY period provided a Water Control/Diversion Plan is developed and submitted to MA DMF by the proponent for review, comments, and approval, and the cofferdams are installed before September 1st. Plans should be submitted to Brad Chase

(brad.chase@mass.gov) and Stephanie Berkman (Stephanie.Berkman@mass.gov) for review, comments, and approval.

- Water levels between cofferdams should be maintained at sufficient levels to allow diadromous fish passage during in-water work until fall emigrations are completed (mid-November).
- De-watering pumps require a two-part screen design to limit entrainment and entrapment of sensitive diadromous species that may be present during the construction period.
- Sediment containment measures, such as silt curtains or silt bags, are required to minimize the impacts of fine-grain sediments on habitat due to dredging, dewatering, or other construction activities.
- Care should be taken to remove and relocate any diadromous species observed in the draw-down footprint of construction area. Hand nets should be kept onsite and any fish relocation noted and reported to DMF with each occurrence.
- The project plans state that invasive species may be removed using herbicides. Herbicidal spray could impact all vegetation and water quality. No herbicides should be used within the wetland area. Additional details (location, extent, timing, application approach, type of herbicide, etc.) should be provided to MA DMF for review and comment if herbicide treatment is proposed in the wetland area.
- Fuel spills from refueling of construction equipment will adversely impact sensitive resource areas. Impacts to resource areas can be avoided by prohibiting all land-based equipment from being refueled on-site. If equipment is refueled on-site, adequate containment and clean-up material should be required to minimize impacts.

Questions regarding this review may be directed to Amanda Davis at amanda.davis@mass.gov.

Sincerely,

Amanda Davis

Amanda Davis
Environmental Analyst
MA Division of Marine Fisheries

cc:

Laura Krause, BETA Group Inc.
John Logan, Kara Falvey, Alicia Hecht, Stephanie Berkman, Brad Chase, MA DMF
Patrice Bordonaro, CZM

AD/kf/ah

References:

1. MA DMF. MassGIS Data: Diadromous Fish. https://www.mass.gov/info-details/massgis-data-diadromous-fish. Accessed February 8, 2023. 2023.
2. Evans, N.T., K.H. Ford, B.C. Chase, and J. Sheppard. 2011. Recommended Time of Year Restrictions (TOYs) for Coastal Alteration Projects to Protect Marine Fisheries Resources in Massachusetts. Massachusetts Division of Marine Fisheries Technical Report, TR-47. https://www.mass.gov/doc/time-of-year-recommendations-tr-47/download

From: Davis, Amanda (FWE) <Amanda.Davis@mass.gov>
Sent: Friday, February 27, 2026 3:26 PM
To: Laura Krause
Cc: Burns, Trevor B. (DOT); Frazier, Greg (DOT); Walker, Courtney L. (DOT); Todd Warzecki; Tyler Drew; Chase, Brad (FWE); Berkman, Stephanie (FWE)
Subject: Re: NOI, Town of Dighton, Pleasant Street Bridge, Dighton

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Hi there Laura,

Thank you for asking for clarification. I forwarded your email to Stephanie and Brad (cc'd).

DMF typically does not allow in-water work in the spring unless plans can prove migratory pathways will not be impacted in any way. In this case, since most of the channel will remain open, DMF can allow the work to be completed on the abutments behind dewatered cofferdams installed prior to the spring TOY under the condition that Stephanie and Brad see and approve a Water and Sediment Control Plan for the project prior to any in-water work or installation of the water control structures. I encourage you to start the conversation with them sooner rather than later. Water control through cofferdams needs to be sufficient enough to require only minor pumping once structures are in place to protect glass eels migrating upstream. Sediments associated with project construction or dewatering must be fully contained and filtered to ensure increased turbidity does not impact the migratory pathway.

Should work on the abutments occur during the Spring TOY, a DMF staff member will periodically check in on the job site to ensure the channel remains safe for fish passage.

Sincerely,
Amanda

From: Laura Krause <LKrause@BETA-Inc.com>
Sent: Tuesday, February 24, 2026 4:42 PM
To: Davis, Amanda (FWE) <Amanda.Davis@mass.gov>
Cc: Burns, Trevor B. (DOT) <Trevor.B.Burns@dot.state.ma.us>; Frazier, Greg (DOT) <Greg.Frazier@dot.state.ma.us>; Walker, Courtney L. (DOT) <Courtney.L.Walker@dot.state.ma.us>; Todd Warzecki <TWarzecki@BETA-Inc.com>; Tyler Drew <tdrew@beta-inc.com>
Subject: RE: NOI, Town of Dighton, Pleasant Street Bridge, Dighton

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Hi Amanda,

Thank you for the review. Could you please clarify the spring TOY restriction? Specifically, can work on the abutments occur behind cofferdams between March 15 and June 30 if the cofferdam is installed before March 15?

Many thanks,
Laura

Laura Krause
Associate – Permitting & Eco. Services
BETA Group, Inc. | 508-756-1600 x7113 | C: 774.258.1230

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From: DMF EnvReview-South (FWE) <dmf.envreview-south@mass.gov>
Sent: Tuesday, February 17, 2026 2:55 PM
To: chasmello66@yahoo.com; lcaledonia <lcaledonia@dighton-ma.gov>
Cc: Davis, Amanda (FWE) <Amanda.Davis@mass.gov>; Logan, John (FWE) <john.logan@mass.gov>; Falvey, Kara (FWE) <Kara.Falvey@mass.gov>; Hecht, Alicia A (FWE) <Alicia.A.Hecht@mass.gov>; Berkman, Stephanie (FWE) <Stephanie.Berkman@mass.gov>; Chase, Brad (FWE) <brad.chase@mass.gov>; Bordonaro, Patrice (EEA) <patrice.bordonaro@mass.gov>; Laura Krause <LKrause@BETA-Inc.com>
Subject: NOI, Town of Dighton, Pleasant Street Bridge, Dighton

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Dear Commissioners:

The Massachusetts Division of Marine Fisheries (MA DMF) has reviewed the Notice of Intent (NOI) by the Town of Dighton to replace the Pleasant Street Bridge within and over Muddy Brook Cove within the Town of Dighton. The proposed work includes installing water controls and dewatering the work area, demolishing the existing bridge, relocating utilities, installing bridge structures (wingwalls, abutments, decking), reconstructing the roadway and walkways, and installing scour protection. The project was reviewed with respect to potential impacts to marine fisheries resources and habitat. Attached is our full review.

Questions regarding this review may be directed to Amanda Davis at amanda.davis@mass.gov.

Sincerely,
Kara Falvey
Sent on behalf of Amanda Davis
Environmental Review Administrative Assistant
MA Division of Marine Fisheries
836 S. Rodney French Boulevard
New Bedford, MA 02744
https://link.edgepilot.com/s/ac15e89a/qYGtwhAV7EiI2CNBE4b3-A?u=http://www.mass.gov/eea/agencies/dfg/dmf/

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DOCUMENT A00844

U.S. FISH AND WILDLIFE SERVICE

NLAA CONCURRENCE VERIFICATION LETTER

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 3301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To: 09/09/2025 20:45:42 UTC
Project code: 2025-0147118
Project Name: 613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE

Subject: Not Likely to Adversely Affect Concurrence verification letter for the '613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the 613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are <u>NOT</u> yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Project does not meet the criteria for a NLAA determination under the PBO/PCO. **If the Service does <u>not</u> notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Project under the terms of the NLAA concurrence provided in the PBO/PCO**. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO/PCO.

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the User's Guide). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE

DESCRIPTION

613636 - DIGHTON- BRIDGE REPLACEMENT, D-08-002 (3L9), PLEASANT STREET OVER MUDDY COVE

Replacement of the existing bridge carrying Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts

Monarch Butterfly: Proposed Threatened Species only. The project action will not have an intentional take on the species and therefore will not jeopardize the continued existence of the proposed species.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.80954835,-71.11988874167976,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

   A) Federal Highway Administration (FHWA)

2. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

   Automatically answered
   Yes

3. [Semantic] Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact the Field Office listed in the letterhead of this letter.

   Automatically answered
   No

4. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

   Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

   No

5. Is your project located within a karst area?

   No

6. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

   Note: For definitions of bridge, culvert, and structure, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat.

   Yes

7. Do your project’s activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

   Yes

8. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

   Note: See the Service's summer survey guidance for current definitions of suitable habitat [https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html].

   Yes

9. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

   Note: See the Service's survey guidance https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html

   Yes

   SUBMITTED DOCUMENTS

   - *613636_Dighton_MassDOT_NLEB_Report.pdf https://ipac.ecosphere.fws.gov/project/F5DXROQB4ZGEJI63KWTZI2K5BA/projectDocuments/169728652*

10. Did the P/A surveys detect Indiana bats, NLEBs, or TCBs?

    Note: If Indiana bats, NLEBs, or TCBs are detected, the action area is considered **documented habitat.**

    No

11. Did the local Service Field Office verify that this P/A survey can be used to determine Indiana bat, NLEB, and TCB are **not likely to be present** within the suitable summer habitat located within your project area?

    Yes

12. Will the project include **bridge** removal, replacement, and/or alteration activities?

    Yes

13. Has a Bridge Bat Assessment been conducted **within the last 24 months** to determine if the bridge is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

    Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

    SUBMITTED DOCUMENTS

    - *613636_Dighton_MassDOT_NLEB_Report.pdf https://ipac.ecosphere.fws.gov/project/F5DXROQB4ZGEJI63KWTZI2K5BA/projectDocuments/169728652*

14. Please select one of the following results of the Bridge Bat Assessment:

    c) *Indicates the* ***absence*** *of Indiana bats, NLEBs, or TCBs roosting in/under the bridge (no bats, guano, etc.)?*

15. Does the project include **culvert** removal, replacement, and/or alteration activities?

    No

16. Does the project include **structure** removal, replacement, and/or alteration activities?

    No

17. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

    Automatically answered
    Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

   Yes

2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

   No

3. Please enter the date of the bridge assessment.

   5/21/2024

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on July 21, 2025. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Massachusetts Department of Transportation
Name: Emily Puglisi
Address: 10 Park Plaza
City: Boston
State: MA
Zip: 02116
Email emily.a.puglisi@dot.state.ma.us
Phone: 6178964424

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

DOCUMENT A00845

FHWA GREATER ATLANTIC REGIONAL FISHERIES OFFICE (GARFO) NLAA PROGRAM VERIFICATION FORM

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Appendix A. Verification Form (updated January 2025)

Federal Highway Administration (FHWA) or the applicable state Department of Transportation (DOT) shall submit a signed version of this completed form, together with any project plans, maps, supporting analyses, etc., to NOAA's National Marine Fisheries Service (NMFS), Greater Atlantic Regional Fisheries Office, Protected Resources Division (GARFO PRD) at nmfs.gar.esa.section7@noaa.gov with "FHWA GARFO NLAA Program: [Project Title or Number]" in the subject line. **Note:** project design contractors and/or consultants may assist in preparing the form, but only FHWA/DOT staff shall sign off on it on the final page.

Project Activity Type (check all that apply to the entire action):

- [x] 1. Bridge repair, demolition, or replacement project
- [ ] 2. Culvert repair or replacement project
- [ ] 3. Dock, pier, or waterway access project (includes construction, demolition, and repairs)
- [ ] 4. Slope stabilization project

Transportation Project Information

Name of Project:	Pleasant Street Bridge Replacement Project		
Reinitiation (Yes/No):	No		
State DOT/Program:	MassDOT - Highway Division		
DOT ID Code:	613636		
Contact Person:	David Paulson		
Phone:	857-262-3378	Email:	david.j.paulson@dot.state.ma.
Project Latitude (e.g., 42.625884):		41.809590	
Project Longitude (e.g., -70.646114):		-71.119690	
Maximum Water Depth (m)		2.0	
Anticipated Project Start Date:	December 2026	Anticipated Project End Date:	June 2031
City/Town:	Dighton, MA	Water body:	Muddy Cove Brook
Project/Action Description and Purpose:	The Pleasant Street Bridge Replacement Project proposes to replace the existing bridge structure that carries Pleasant Street over Muddy Cove Brook in Dighton. The existing structure was constructed in 1912, and shows signs of significant deterioration. The Project will replace both bridge abutments and superstructure. The replacement structure will consist of a single span structure with a square span of 23.3 feet, and out-to-out width of 40 feet and a hydraulic opening of 244 square feet. The proposed structure will be 1 foot higher to provide additional clearance and improve stream flow. The widened bridge deck will also allow for construction of a concrete sidewalk along the eastern side of the bridge, along with modernized railings. The purpose of the Project is to provide safe vehicular travel along the Pleasant Street corridor but replacing the aging structure, and provide opportunities for future pedestrian and bicycle improvements. Work within Atlantic sturgeon habitat is limited to installation of dewatering structures, excavation to replace bridge abutments and installation of modified rock fill. Pile-driving is proposed to install temporary metal sheeting as water control devices around both bridge abutments. In order to minimize impacts associated with underwater noise, the contractor will be required to use "Soft-start" techniques to allow animals an opportunity to leave the project vicinity. The sheet piling will be installed using impact pile installation. Pile driving will commence with an initial set		

ESA-listed species and/or critical habitats in the action area (Check all that apply)

☑	Atlantic sturgeon (all DPSs)	☐	Kemp's ridley sea turtle
☐	Atlantic sturgeon critical habitat Indicate which DPS (GOM, NYB, Chesapeake Bay DPSs): Select DPS	☐	Loggerhead sea turtle (Northwest Atlantic DPS)
☐	Shortnose sturgeon	☐	Leatherback sea turtle
☐	Atlantic salmon (GOM DPS)	☐	North Atlantic right whale
☐	Atlantic salmon critical habitat (GOM DPS)	☐	North Atlantic right whale critical habitat
☐	Green sea turtle (North Atlantic DPS)	☐	Fin whale

* Please consult GARFO PRD's ESA Section 7 Mapper for ESA-listed species and critical habitat information for your action area at: https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater.

The following stressors are applicable to the action:

- ■ Underwater Noise
- ■ Impingement/Entrainment and Entanglement
- ■ Water Quality/Turbidity
- ■ Habitat Alteration
- ☐ Vessel Traffic

Impacts Table

Habitat Alteration		
	Permanent (acres)	Temporary (acres)
Sand (saline)	0.00	0.00
Silt/Mud/Clay (saline)	0.00	0.00
Hard bottom (saline)	0.02	0.01
Submerged Aquatic Vegetation (SAV) (saline)	0.00	0.00
Sand (freshwater)	0.00	0.00
Silt/Mud/Clay (freshwater)	0.00	0.00
Hard bottom (freshwater)	0.00	0.00
Submerged Aquatic Vegetation (SAV) (freshwater)	0.00	0.00
Total amount of habitat alteration	0.02	0.01

In-water Construction Impacts	
	Amount in meters
Width of water body in action area (m)	7.1
Stressor category that extends furthest distance into water body (e.g.; underwater noise, turbidity plume)	Underwater noise
Maximum extent of stressor into the water body (m)	4,641.0

Project Design Criteria (PDC) Checklist
FHWA/DOT shall incorporate all general PDCs and all applicable PDCs in the appropriate stressor categories. For any PDCs that are not incorporated, additional justification is required for a project to be eligible for the NLAA Program. FHWA/DOT shall check the corresponding box for each PDC that is, or will be, incorporated into the project or indicate if not applicable.

GENERAL PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	1.	Ensure all operators, employees, and contractors are aware of all FHWA environmental commitments, including these PDC, when working in areas where ESA-listed species may be present or in critical habitat.
☑		2.	No portion of the proposed action will individually or cumulatively have an adverse effect on ESA-listed species or critical habitat.
☐	☑	3.	No portion of the proposed action that may affect the GOM DPS of Atlantic salmon will occur in the tidally influenced portion of rivers/streams where their presence is possible from April 10 through November 7. The range of the GOM DPS only occurs in Maine. **Note**: If the project will occur within the geographic range of the GOM DPS Atlantic salmon but their presence is not expected following the best available commercial scientific data, the work window does not need to be applied. Please attach best available information (i.e. local fisheries biologist correspondence).
☐	☑	4.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as spawning grounds as follows: i. Gulf of Maine: Apr 1-Aug 31 ii. Southern New England/New York Bight: Mar 15-Aug 31 iii. Chesapeake Bay: Mar 15-Jul 1 and Sep 15-Nov 1 **Note**: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval.
☐	☑	5.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as overwintering grounds where dense aggregations are known to occur as follows: i. Gulf of Maine: Oct 15-Apr 30 ii. Southern New England/New York Bight: Nov 1-Mar 15 iii. Chesapeake Bay: Nov 1-Mar 15 **Note**: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval.
☐	☑	6.	Within designated critical habitat for Atlantic sturgeon, no work will affect hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand) (PBF 1).
☑		7.	Work will result in no or only temporary/short-term changes in water temperature, water flow, salinity, or dissolved oxygen levels.

Yes	N/A	PDC #	PDC Description
☑		8.	If ESA-listed species are (a) likely to pass through the action area at the time of year when project activities occur; and/or (b) the project will create an obstruction to passage when in-water work is completed, then a zone of passage (~50% of water body) with appropriate habitat for ESA-listed species (e.g., depth, water velocity, etc.) must be maintained (i.e., physical or biological stressors such as turbidity and sound pressure must not create barrier to passage).
☑		9.	The project will not adversely impact any submerged aquatic vegetation (SAV) or oyster reefs.
☑		10.	No blasting or use of explosives will occur.
☑		11.	No in-water work on large dams or tide gates (small dam and tide gate repairs may be permitted with prior review and approval from NMFS).

UNDERWATER NOISE PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	12.	If pile driving is occurring during a time of year when ESA-listed species may be present, and the anticipated noise is above the behavioral noise threshold, a "soft start" is required to allow animals an opportunity to leave the project vicinity before sound pressure levels increase. *In addition to using a soft start at the beginning of the work day for pile driving, one must also be used at any time following cessation of pile driving for a period of 30 minutes or longer.* <u>For impact pile driving</u>: pile driving will commence with an initial set of three strikes by the hammer at 40% energy, followed by a one minute wait period, then two subsequent three-strike sets at 40% energy, with one-minute waiting periods, before initiating continuous impact driving. <u>For vibratory pile installation</u>: pile driving will be initiated for 15 seconds at reduced energy followed by a one-minute waiting period. This sequence of 15 seconds of reduced energy driving, one-minute waiting period will be repeated two additional times, followed immediately by pile-driving at full rate and energy.

Yes	N/A	PDC #	PDC Description
☐	☐	13.	All underwater noise is below the injury thresholds of ESA-listed species in the action area. Attach your calculations to this verification form supporting this.
☑	☐	14.	Any new pile-supported structure must involve the installation of no more than 50 piles (below MHW).

Information for Pile Driving:
If your project includes **pile driving of any kind**, please attach your calculation to this verification form to verify that it fits within the scope of the behavioral/injury threshold analysis for ESA-listed species in the action area. The NMFS Office of Protected Resources Acoustic Calculator is available as one source, should you not have other information:
https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-effects-analysis-acoustics-greater-atlantic-region

Pile material (e.g., steel pipe, concrete)	Pile diameter/ width (in)	Number of piles	Installation method (e.g., impact hammer, vibratory start and then impact hammer to depth, drilling)
Steel sheeting	60	36	Impact hammer
Steel H-piles	12	34	Pre-drilled, then Impact hammer

IMPINGEMENT/ENTRAINMENT AND ENTANGLEMENT PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	15.	If excavating or dredging, only mechanical buckets, hydraulic cutterheads, or low volume hopper dredges (e.g., CURRITUCK, ≤300 cubic yard maximum bin capacity) may be used. **Note**: We consider excavating a smaller scale form of mechanical dredging.
☑	☐	16.	No new excavation or dredging in Atlantic sturgeon or salmon critical habitat (excavation in a prior construction footprint or maintenance dredging is permitted, but still must meet all other PDCs). New excavation or dredging outside Atlantic sturgeon or salmon critical habitat is limited to one-time events (e.g., burying a cable or utility line) and minor (≤2 acres) expansions of areas already subject to prior excavation or maintenance dredging. Locating a replacement bridge within 250 feet (centerline to centerline) of an existing bridge and excavation of sediment around bridge piers are considered work in a previous construction footprint. **Note**: We consider excavating a smaller scale form of mechanical dredging.

Yes	N/A	PDC #	PDC Description
☑	☐	17.	Temporary intakes related to construction are prohibited in sturgeon and salmon spawning, rearing, or overwintering habitat during the time of year windows identified in General PDCs 3-5. If utilized outside those areas and times of year and in an area with anticipated sturgeon and salmon presence, temporary intakes must be equipped with 2-millimeter wedge wire mesh screening and must not have greater than 0.5 feet per second intake velocities, to prevent impingement or entrainment of juvenile and early life stages of these species.
☑	☐	18.	Work behind cofferdams, turbidity curtains, or other instruments that prevent access of animals to the project area is required when ESA-listed species are likely to be present (if presence is limited to rare, transient individuals, access control measures are not necessary). Once constructed, work inside a cofferdam at any time of year may be permitted with NMFS approval, provided the cofferdam is installed/removed outside the time-restricted period.
☑	☐	19.	No new permanent surface water withdrawal, water intakes, or water diversions.
☑	☐	20.	Turbidity control measures, including cofferdams, must be designed to not entangle or entrap ESA-listed species.
☐	☑	21.	Any in-water lines, ropes, or chains must be made of materials and installed in a manner to minimize or avoid the risk of entanglement by using thick, heavy, and taut lines that do not loop or entangle. Lines can be enclosed in a rigid sleeve.

WATER QUALITY/TURBIDITY PDCs			
Yes	N/A	PDC #	PDC Description
☐	☑	22.	In-water offshore disposal may only occur at designated disposal sites that have already been the subject of ESA section 7 consultation with NMFS and where a valid consultation is in place.
☐	☑	23.	Any temporary discharges must meet state water quality standards (e.g., no discharges of substances in concentrations that may cause acute or chronic adverse reactions, as defined by EPA water quality standards criteria).
☐	☑	24.	Only repair, upgrades, relocations, and improvements of existing discharge pipes or replacement in-kind are allowed; no new construction of untreated discharges.
☑	☐	25.	Work behind cofferdams, turbidity curtains, or other instruments to control turbidity is required when operationally feasible and ESA-listed species are likely to be present (if presence is limited to rare, transient individuals, turbidity control methods are not necessary).

HABITAT ALTERATION PDCs			
Yes	N/A	PDC #	PDC Description
☑	☐	26.	Minimize all new waterward encroachment and permanent fill.
☐	☑	27.	In Atlantic salmon critical habitat, stream simulation design with a minimum span of 1.2 bankfull width will be used in areas with minimal tidal influence. In tidal areas, a design that allows for unimpeded flow will be used (no delay in water entering or exiting the area upstream of the crossing).
☐	☑	28.	In Atlantic salmon critical habitat, no culvert end extensions, invert line culvert rehabilitation, or slipline culvert rehabilitation may occur.

VESSEL TRAFFIC PDCs			
Yes	N/A	PDC #	PDC Description
☐	☑	29.	Maintain project (i.e., construction) vessels operating within the action area to speed limits below 10 knots and dredge vessels to speeds of 4 knots maximum, while dredging.
☐	☑	30.	Maintain a 1,500-foot buffer between project (i.e., construction) vessels and ESA-listed whales and a 300-foot buffer between project vessels and sea turtles. This also applies to dredge vessels.
☐	☑	31.	The number of project (construction) vessels must be limited to the greatest extent possible, as appropriate to size and scale of project.
☐	☑	32.	The project must not result in the permanent net increase of commercial vessels.

Justification for NLAA Determination if not Incorporating All PDC
If the project is not in compliance with all of the general and stressor-based PDCs, but you can provide justification and/or special conditions to demonstrate why the project still meets the NLAA determination and is consistent with the aggregate effects considered in the programmatic consultation, you may still certify your project through the NLAA program using this verification form. Please identify which PDCs your project does not meet (e.g., PDC 9, PDC 15, PDC 22, etc.) and provide your rationale and justification for why the project is still eligible for the verification form. Project modifications must not result in different effects not already considered.

To demonstrate that the project is still NLAA, you must explain why the effects on ESA-listed species or critical habitat are **insignificant** (i.e., too small to be meaningfully measured or detected) or **discountable** (i.e., extremely unlikely to occur). **Please use this language in your justification.**

PDC#	Justification
13	Work activity, particularly metal sheet installation, is expected to occur during winter months when Atlantic Sturgeon are not present in the area. Additional work such as bridge pile installation that is conducted during active season for the Atlantic Sturgeon will only be conducted for up to 8 hours a day, providing a temporal zone of passage for wildlife. A "soft start" technique will be employed to provide species a chance to leave the area before impacts begin. To be exposed to potentially injurious levels of noise during hammering of the piles, a sturgeon would need to be within 13.6 meters of the pile being driven for an instant, or within 85.4 meters for a prolonged time period. This is extremely unlikely to occur because it is expected that sturgeon would modify their behavior quickly after being exposed to noise above behavioral thresholds within 4,641 meters and move away from the area before injury levels are reached. Given that the time to drive the piles will be short and the species that can potentially be present

FHWA/DOT Verification of Determination (To be filled out by FHWA/DOT staff only)
By submitting this Verification Form, FHWA, or the state DOT as FHWA's designated non-federal representative, indicates that they determined that the proposed activity described above is not likely to adversely affect (NLAA) ESA-listed species or designated critical habitat under NMFS jurisdiction in accordance with the Program, and all effects (direct, indirect, interrelated, and interdependent) are either insignificant (so small they cannot meaningfully be measured, detected, or evaluated) or discountable (extremely unlikely to occur).

☐	In accordance with the FHWA GARFO NLAA Program, we have determined that the action complies with all applicable PDCs and is not likely to adversely affect listed species.
☑	In accordance with the FHWA GARFO NLAA Program, we have determined that the action is not likely to adversely affect listed species per the justifications and/or special conditions provided above.

FHWA/DOT Signature:	Date:
David Paulson Digitally signed by David Paulson Date: 2026.01.07 10:50:13 -05'00'	01/07/2026

By providing your determination and signature, you are certifying that to the best of your knowledge the information provided in this form is accurate and based upon the best available scientific information. This form must be filled out and signed by FHWA or state DOT staff, as an officially designated non-federal representative.

GARFO PRD Concurrence (To be filled out by GARFO PRD)
After receiving the Verification Form, GARFO PRD will contact FHWA/DOT with any concerns and indicate whether GARFO PRD concurs with FHWA/DOT's determination.

☐	In accordance with the FHWA GARFO NLAA Program, GARFO PRD concurs with FHWA/DOT's determination that the action complies with all applicable PDCs and is not likely to adversely affect listed species or critical habitat.
☑	In accordance with the FHWA GARFO NLAA Program, GARFO PRD concurs with FHWA/DOT's determination that the action is not likely to adversely affect listed species or critical habitat per the justifications and/or special conditions provided above.
☐	GARFO PRD does not concur with FHWA/DOT's determination that the action complies with the applicable PDCs (with or without justifications), and recommends an individual Section 7 consultation to be completed independent from the FHWA GARFO NLAA Program.

GARFO PRD Signature:	Date:
ROOSEVELT.MESA 2026.01.07 15:10:52 -05'00'	01/07/2026

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DOCUMENT A00860

MASSACHUSETTS

DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF INTENT

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IMPROVING COMMUNITIES TOGETHER

January 19, 2026

James Digits, Chair
Dighton Conservation Commission
979 Somerset Avenue
Dighton, MA 02715

Re: Notice of Intent – Pleasant Street Bridge Replacement
MassDOT Project #613636
Dighton, Massachusetts

Dear Mr. Digits and Commissioners:

On behalf of the Massachusetts Department of Transportation (MassDOT) and the Town of Dighton, BETA Group, Inc. is submitting a Notice of Intent (NOI) for the replacement of the bridge that carries Pleasant Street over Muddy Cove Brook (the Project) in eastern Dighton, Massachusetts. The existing bridge was constructed in 1918, and the superstructure and abutments now show evidence of cracking and deterioration.

The Project proposes the following:

- Installation of erosion and sediment controls at the limit of work prior to construction;
- Installation of water controls and dewatering of the work area;
- Demolition and removal of the existing bridge;
- Relocation of existing water and gas utilities;
- Installation of new wingwalls and abutments;
- Installation of new bridge deck and associated structures;
- Full depth roadway reconstruction and grading;
- Installation of a concrete sidewalk;
- Installation of concrete pedestrian curb ramp;
- Installation of scour protection; and
- Restoration of temporarily disturbed work areas with loam and seed.

In accordance with the Massachusetts Transportation Bond Bill of 2014 the proposed work described herein that is associated with bridge repair and replacement is exempt from review under the Massachusetts Wetlands Protection Act (M.G.L. c. 131 §40) and its implementing regulations (310 CMR 10.00); however, the Project proposes work within Resource Areas Subject to Jurisdiction under the Town of Dighton Wetland Protection Bylaw (the Bylaw). Accordingly, this NOI is submitted under the Dighton Wetlands Protection Bylaw only.

The Project proposes the replacement of the superstructure and substructure, however, as a tidal crossing the Project will not meet the Massachusetts Stream Crossing Standard. Work associated with the Project will result in temporary and permanent impacts to Areas Subject to Protection under the Bylaw including Coastal Bank, Land Under the Ocean (LUO), Land Subject to Coastal Storm Flowage (LSCSF), Rocky Intertidal Shore (RIS / Land Subject to Tidal Action [LSTA]), Fish Runs, and Riverfront Area (RA) associated with Muddy Cove Book and the Taunton River. The Project will result in a total of around 12,730 square feet (sf) of alteration to Resource Areas with the Town of Dighton.

BETA GROUP, INC.
89 Shrewsbury Street, Suite 300, Worcester, MA 01604
P: 508.756.1600 | W: www.BETA-Inc.com

Specifically, the Project proposes 119 linear feet (lf) of temporary Coastal Bank impact, 92 square feet (sf) of temporary and 749 sf of permanent impact to RIS(LSTA), 453 sf of temporary, 192 sf of permanent impact and 98.2 cubic yards (cy) of dredging within LUO and 803 sf of permanent and 2,814 sf of temporary impact to RA. The entire Project is also located entirely within LSCSF and will result in approximately 11,244 sf of temporary impacts. Work is also proposed within the 25-foot, 50-foot, 100-foot and 200-foot Buffer Zones established under the Bylaw. The Project has been designed to minimize impacts to surrounding Resource Areas to the extent practicable.

This NOI has not been concurrently submitted to the Massachusetts Department of Environmental Protection (MassDEP) Southeast Regional Office, as the Project is only subject to the Dighton Bylaw. Abutters within 300 feet of the Project have been notified as required by the Bylaw. As a municipal project, the Project is exempt from filing fees.

We trust that the following application provides adequate information to facilitate the issuance of an Order of Conditions. Should you have any additional questions, please do not hesitate to contact us.

Very truly yours,
BETA Group, Inc.

Tyler Drew
Scientist

Laura Krause
Associate

cc: Ralph Vitacco, Town Administrator
Todd Warzecki, PE (BETA)
Greg Frazier, MassDOT Project Manager
Courtney Walker, MassDOT Wetlands Coordinator

Job No: 22.10328.00

Dighton, Massachusetts

Pleasant Street Bridge Replacement

Over Muddy Cove Brook

January 2026

NOTICE OF INTENT

89 Shrewsbury Street
Suite 300
Worcester, MA 01604
508.756.1600
www.BETA-Inc.com

Pleasant Street Bridge Replacement

Dighton, Massachusetts

Over Muddy Cove Brook

NOTICE OF INTENT

Prepared by: BETA GROUP, INC.
Prepared for: The Town of Dighton

January 2026

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WPA FORM 3 – NOTICE OF INTENT

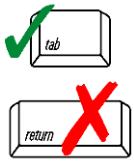
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Dighton Wetland Protection Bylaw

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Dighton
City/Town

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

Pleasant Street	Dighton	02715
a. Street Address	b. City/Town	c. Zip Code

Latitude and Longitude: 41.809598 (d. Latitude) -71.119684 (e. Longitude)

N/A - Roadway	N/A - Roadway
f. Assessors Map/Plat Number	g. Parcel /Lot Number

2. Applicant:

Ralph	Vitacco
a. First Name	b. Last Name

Town of Dighton
c. Organization

979 Somerset Avenue
d. Street Address

Dighton	MA	02715
e. City/Town	f. State	g. Zip Code

508-669-6431		rvitacco@dighton-ma.gov
h. Phone Number	i. Fax Number	j. Email Address

3. Property owner (required if different from applicant): ☐ Check if more than one owner

a. First Name	b. Last Name

Town of Dighton
c. Organization

979 Someerset Avenue
d. Street Address

Dighton	MA	02715
e. City/Town	f. State	g. Zip Code

508-669-6431		
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

Laura	Krause
a. First Name	b. Last Name

BETA Group Inc.
c. Company

89 Shrewsbury Street
d. Street Address

Worcester	MA	01604
e. City/Town	f. State	g. Zip Code

844-800-2382 x7113		lkrause@beta-inc.com
h. Phone Number	i. Fax Number	j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

Fee Exempt	Fee Exempt	Fee Exempt
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid

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A. General Information (continued)

6. General Project Description:

The Project proposes to replace the bridge that carries Pleasant Street over Muddy Cove Brook. The existing structure is aging and deteriorating and will be replaced with a modernized structure with updated safety improvements. The replacement structure will be enlarged to improve line of sight from Muddy Cove Lane, and to accommodate pedestrian and bicycle accomodations.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Commercial/Industrial
4. ☐ Dock/Pier
5. ☐ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☒ Transportation
9. ☐ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☒ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

N/A - Roadway
a. County

b. Certificate # (if registered land)

c. Book

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☒ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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Dighton Wetland Protection Bylaw

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☒ Riverfront Area	Muddy Cove Brook / Taunton River 1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☒ 100 ft. - New agricultural projects only

☒ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: 82,798 square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
3,617	3,617	0

5. Has an alternatives analysis been done and is it attached to this NOI? ☒ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☒ Yes ☐ No

3. ☒ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f**. above.

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☒ Land Under the Ocean	453 (Temp) 192 (Perm) 98.2 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment
	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☒ Coastal Banks	119 (Temp) 1. linear feet	
g. ☒ Rocky Intertidal Shores	92 (Temp) 749 (Perm)	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☒ Land Containing Shellfish	453 (Temp) 192 (Perm)	
k. ☒ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 98.2 1. cubic yards dredged	
l. ☒ Land Subject to Coastal Storm Flowage	11,244 (Temp) 1. square feet	

4. ☐ Restoration/Enhancement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW | b. square feet of Salt Marsh

5. ☒ Project Involves Stream Crossings

a. number of new stream crossings | 1 b. number of replacement stream crossings

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Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
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C. Other Applicable Standards and Requirements

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. ☐ Yes ☒ No

If yes, include proof of mailing or hand delivery of NOI to:

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

August 2021
b. Date of map

If *yes*, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

c. Submit Supplemental Information for Endangered Species Review*

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____ percentage/acreage

(b) outside Resource Area _____ percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.
** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

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C. Other Applicable Standards and Requirements (cont'd)

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

*Projects altering **10 or more acres** of land, also submit:*

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. ☐ Not applicable – project is in inland resource area only b. ☒ Yes ☐ No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☒ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Dighton Wetland Protection Bylaw

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Dighton
City/Town

C. Other Applicable Standards and Requirements (cont'd)

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

   a. ☐ Yes ☒ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

   a. ☐ Yes ☒ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

   a. ☒ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
      2. ☒ A portion of the site constitutes redevelopment
      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☐ No. Check why the project is exempt:

      1. ☐ Single-family house
      2. ☐ Emergency road repair
      3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Dighton Wetland Protection Bylaw

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Dighton
City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

Pleasant Street over Muddy Cove Brook
a. Plan Title

BETA Group, Inc.
b. Prepared By

Todd Warzecki, PE
c. Signed and Stamped by

December 2025
d. Final Revision Date

As shown
e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☒ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☐ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

1. ☒ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Dighton Wetland Protection Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dighton
City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

Robert Ditacco — 1. Signature of Applicant

1/12/26 — 2. Date

3. Signature of Property Owner (if different)

4. Date

Laura Krause — 5. Signature of Representative (if any)

1/14/2026 — 6. Date

For Conservation Commission:
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

ABUTTERS INFORMATION

300 feet Abutters List Report

Dighton, MA
October 14, 2025

Subject Property:

PLEASANT ST BRIDGE

Abutters:

Parcel Number:	020.0-0012-0000.0	Mailing Address:	DIGHTON, TOWN OF CONSERVATION COMMISSION 979 SOMERSET AVE DIGHTON, MA 02715-
CAMA Number:	020.0-0012-0000.0		
Property Address:	0 PLEASANT ST		
Parcel Number:	020.0-0013-0000.0	Mailing Address:	DIGHTON, TOWN OF 979 SOMERSET AVE DIGHTON, MA 02715-
CAMA Number:	020.0-0013-0000.0		
Property Address:	0 PLEASANT ST		
Parcel Number:	020.0-0034-0000.0	Mailing Address:	ZENECA INC ATTN: JOHN-PAUL ROSSI 1800 CONCORD PIKE-A2C WILMINGTON, DE 19850-5437
CAMA Number:	020.0-0034-0000.0		
Property Address:	0 PLEASANT ST		
Parcel Number:	020.0-0035-0000.0	Mailing Address:	PARKER, RICHARD A 222 MUDDY COVE LN DIGHTON, MA 02715-
CAMA Number:	020.0-0035-0000.0		
Property Address:	222 MUDDY COVE LN		
Parcel Number:	020.0-0036-0000.0	Mailing Address:	THE TWO HUNDRED TEN MUDDY COVE REALTY TRUST STANKAUSKAS CHERYL, TRUSTEE 210 MUDDY COVE LN DIGHTON, MA 02715-
CAMA Number:	020.0-0036-0000.0		
Property Address:	210 MUDDY COVE LN		
Parcel Number:	020.0-0037-0000.0	Mailing Address:	DIGHTON, TOWN OF 979 SOMERSET AVE DIGHTON, MA 02715-
CAMA Number:	020.0-0037-0000.0		
Property Address:	0 MUDDY COVE LN		
Parcel Number:	020.0-0038-0000.0	Mailing Address:	SWAIN, KRISTOPHER N 223 MUDDY COVE LN DIGHTON, MA 02715-
CAMA Number:	020.0-0038-0000.0		
Property Address:	223 MUDDY COVE LN		
Parcel Number:	020.0-0039-0000.0	Mailing Address:	THE TWO HUNDRED TEN MUDDY COVE REALTY TRUST STANKAUSKAS CHERYL, TRUSTEE 210 MUDDY COVE LN DIGHTON, MA 02715-
CAMA Number:	020.0-0039-0000.0		
Property Address:	213 MUDDY COVE LN		
Parcel Number:	020.0-0040-0000.0	Mailing Address:	REGO, GARY L 201 MUDDY COVE LN DIGHTON, MA 02715-
CAMA Number:	020.0-0040-0000.0		
Property Address:	201 MUDDY COVE LN		

300 feet Abutters List Report

Dighton, MA
October 14, 2025

Parcel Number:	020.0-0041-0000.0	Mailing Address:	CARTIN, THOMAS SR & MARJORIE E CARTIN, THOMAS JR TRUSTEE 1855 BUCK PLAIN RD DIGHTON, MA 02715-
CAMA Number:	020.0-0041-0000.0		
Property Address:	2288 PLEASANT ST		
Parcel Number:	020.0-0042-0000.0	Mailing Address:	CARTIN, THOMAS JR TRUSTEE OF THE 2288 PLEASANT ST TRUST 1855 BUCK PLAIN RD DIGHTON, MA 02715-
CAMA Number:	020.0-0042-0000.0		
Property Address:	0 MUDDY COVE LN		
Parcel Number:	020.0-0043-0000.0	Mailing Address:	KANE, WILLIAM R & MARGUERITE C LE KANE FAMILY TRUST 2298 PLEASANT ST DIGHTON, MA 02715-
CAMA Number:	020.0-0043-0000.0		
Property Address:	2298 PLEASANT ST		
Parcel Number:	020.0-0044-0000.0	Mailing Address:	KANE, WILLIAM R & MARGUERITE C LE KANE FAMILY TRUST 2298 PLEASANT ST DIGHTON, MA 02715-
CAMA Number:	020.0-0044-0000.0		
Property Address:	0 PLEASANT ST		
Parcel Number:	020.0-0045-0000.0	Mailing Address:	MCKEON, WILLIAM E MCKEON JR THE TRUST-2017 THE COLETTE L MCKEON TRUST-2017 3430 GULF SHORE BLVD N, APT 5E NAPLES, FL 34103-
CAMA Number:	020.0-0045-0000.0		
Property Address:	2308 PLEASANT ST		
Parcel Number:	020.0-0046-0000.0	Mailing Address:	THE WILLIAM E MCKEON JR TRUST - 2017 THE COLETTE L MCKEON TRUST - 2017 3430 GULF SHORE BLVD N, APT 5E NAPLES, FL 34103-
CAMA Number:	020.0-0046-0000.0		
Property Address:	0 PLEASANT ST		
Parcel Number:	020.0-0201-0001.0	Mailing Address:	SEMPER, JASMINE 257 WASHINGTON ST HANOVER, MA 02339-
CAMA Number:	020.0-0201-0001.0		
Property Address:	0 COUNTY ST		
Parcel Number:	020.0-0037-0000.0	Mailing Address:	DIGHTON, TOWN OF 979 SOMERSET AVE DIGHTON, MA 02715-
CAMA Number:	020.0-0037-0000.0		
Property Address:	0 MUDDY COVE LN		

Not official unless stamped by
The Board of Assessors

Eric Easterday
Nancy Goulart
William Moore

THE ABOVE NAMES AND ADDRESSES
HAVE BEEN CERTIFIED BY THE
DIGHTON ASSESSORS OFFICE AS OF
TODAY 10/14/25 J. Wilson

NOTIFICATION TO ABUTTERS UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT AND THE DIGHTON CONSERVATION COMMISSION BYLAW

In accordance with the second paragraph of Mass General Laws, Ch. 131, S. 40, and the Dighton Conservation Commission By-law, you are hereby notified of the following:

A. The name of the applicant is: __**The Town of Dighton**_____

B. The name of the owner is: _____**The Town of Dighton**_____

C. The applicant has filed a **Notice of Intent (NOI)** with the Dighton Conservation Commission and/or the Department of Environmental Protection seeking permission to: **Replace the Pleasant Street Bridge over Muddy Cove Brook.**

This proposed activity will remove, fill, dredge, or alter an area subject to protection under the Massachusetts Wetlands Protection Act (General Laws Ch. 131, S. 40, and/or the Dighton Conservation Commission By-law).

D. The address, and/or Map and Lot numbers, and Street of the property where the activity is proposed: ____
Pleasant Street at Muddy Cove Lane **MAP#** **N/A** **LOT#** **N/A**

E. Copies of the Notice of Intent may be examined by contacting the Dighton Conservation Commission at LCaledonia@Dighton-ma.gov or 774-872-0946.

F. Copies of the Notice of Intent may be obtained from either the:

(**check one**) _____applicant, or the __**X**__applicant's representative by calling **(844) 800-2382 ext 7094**

between the hours of: **8:00 AM** and **4:00 PM** on the following days of the week: **Monday - Friday**

G. The public hearing has been scheduled for: (month, day, year) **2/19/2026** at(time) **6:00 PM**
at the Old Town Hall, 1111 Somerset Avenue, upper level.

H. Notice of the public hearing, including the date, time, and place, will be published in **The Taunton Gazette** at least five days in advance of the hearing. This will be your only notice of public hearing (s) for this project before Conservation. If any future hearing(s) will held, they will be announced at the initial public hearing.

I. Notice of the public hearing, including date, time and place, will be posted online at www.dighton-ma.gov & at Town Hall, 979 Somerset Avenue, Dighton, not less than forty-eight (48) hours in advance.

J. This notice is being sent to you by: (name) **BETA Group, Inc.**
who is the _____owner, _____, applicant, ____**X**_____ or representative (please check one)

K. You may also contact the Dighton Conservation Commission at (774) 872-0946 or LCaledonia@Dighton-ma.gov, or the Department of Environmental Protection at (508) 946-2800 for more information about this application, the Wetlands Protection Act, or the Dighton Conservation Commission By-law.

Affidavit of Service
Under the Dighton Wetlands Protection Act

(to be submitted to the Conservation Commission when filing a Notice of Intent)

I, Tyler Drew, hereby certify under the pains and penalties of perjury that on 1/19/2026 I gave notification to abutters in compliance with the Dighton Wetlands Protection Bylaw, in connection with the following matter:

A Notice of Intent filed under the Dighton Wetlands Protection Bylaw by The Town of Dighton with the Town of Dighton Conservation Commission on 1/19/2026 for proposed replacement of the Pleasant Street Bridge in Dighton, Massachusetts.

The form of notification, and a list of the abutters to whom it was given and their addresses, are attached to this Affidavit of Service.

Tyler Drew
Name

1/19/2026
Date

NARRATIVE

1.0 INTRODUCTION

BETA group, inc. (BETA) is submitting a Notice of Intent (NOI) on behalf of the Town of Dighton and Massachusetts Department of Transportation (MassDOT), to replace the existing bridge carrying Pleasant Street over Muddy Cove Brook in Dighton, Massachusetts (the Project). The purpose of the Project is to improve safety and transportation infrastructure in eastern Dighton, as the existing bridge superstructure and substructure were found to have cracking and deterioration. The Project proposes demolition of the existing bridge, and construction of a new modernized structure.

Proposed work includes:

- Installation of erosion and sediment controls at the limit of work prior to construction;
- Installation of water controls and dewatering of the work area;
- Demolition and removal of the existing bridge;
- Relocation of existing water and gas utilities;
- Installation of new bridge deck and associated structures;
- Installation of new wingwalls and abutments;
- Full depth roadway reconstruction and grading;
- Installation of a concrete sidewalk;
- Installation of concrete pedestrian curb ramp;
- Installation of scour protection; and
- Restoration of temporarily disturbed work areas with loam and seed.

"In accordance with the Massachusetts Transportation Bond Bill of 2014, the proposed work described herein that is associated with bridge repair and replacement is exempt from review under the Massachusetts Wetlands Protection Act (M.G.L. c.131 §40) and its implementing regulations (310 CMR 10.00, however, the Project proposes work within Resource Areas Subject to Jurisdiction under the Town of Dighton Wetland Protection Bylaw (the Bylaw). Resource Area impacts resulting from the Project will include:

- 119 linear feet (lf) of temporary impact to Coastal Bank;
- 92 square feet (sf) of temporary and 749 sf of permanent impact to Rocky Intertidal Shore (RIS / Land Subject to Tidal Action [LSTA]);
- 453 sf of temporary and 192 sf of permanent impact to Land Under Ocean (LUO);
- 11,244 sf of temporary impact to Land Subject to Coastal Storm Flowage, and;
- 2,814 sf of temporary and 803 sf of permanent impact to RA.

Work is also proposed within the 25-foot, 50-foot, 100-foot and 200-foot Buffer Zones established under the Bylaw. The Project has been designed to minimize impacts to surrounding Resource Areas to the extent practicable.

Due to the nature of the proposed work, the Project will also require the following permits:

- A Section 401 Water Quality Certification (WQC);
- Coverage under the U.S. Army Corps of Engineers (USACE) Section 404 Massachusetts General Permit;
- Section 106 Historic Review, as the Project proposes demolition of a historic resource.
- Project review with NOAA's National Marine Fisheries Service (NMFS) for proposed work within Atlantic Sturgeon (*Acipenser oxyrhynchus oxyrhynchus*) habitat.

- Essential Fish Habitat (EFH) assessment is required due to proposed work within EFH.
- Legislative Action for a land transfer under the Public Lands Protection Act.
- Review under the National Environmental Protection Act as an Individual Categorical Exclusion.
- Coordination with the National Parks Services for work along the Taunton River, a federally-designated Wild and Scenic River.

2.0 Site Description

2.1 Project Locus & Existing Conditions

The Project limits include approximately 250 feet of Pleasant Street centered over the bridge conveying Pleasant Street over Muddy Cove Brook, and approximately 90 feet of Muddy Cove Lane from its intersection with Pleasant Street in Dighton, Massachusetts (the Site).

The existing bridge consists of a combination of reinforced concrete tee beams beneath the original roadway, and concrete encased steel girders beneath the original trolly track on the east side. The substructure consists of reinforced concrete abutments, U-wingwalls to the northwest and southeast, and splayed wingwalls to the northeast and southwest. These are supported on piles of unknown specification and depth. The existing structure has a clear span of approximately 28 feet (square span of 23’ -4 ¾”) , an out-to-out width of 36’-4 1/2”, and a curb-to-curb width of 32’-1/2”. Over the bridge, there is a hot mix asphalt wearing surface and concrete railing on both sides. The trolley line on the east side is no longer present and is anticipated to have been buried or removed. The bridge is currently posted for 7-ton, 15-ton, and 22-ton weight limits.

Pleasant Street is a two-way road that runs in a north/south direction through a rural residential community in eastern Dighton, Massachusetts (Figure 1 – Site Locus). Pleasant Street is classified as a local road under the jurisdiction of the Town of Dighton. Stormwater infrastructure on the Site is classified as “country drainage” with the only stormwater structures located within Muddy Cove Lane, north of the Project area. Utilities on the Site include a 2” gas main and 8” water main located within the paved Pleasant Street roadway and bridge.

Existing land uses surrounding the Site include residential housing to the south, Tricentennial Park to the north. Muddy Cove Brook flows east through the Site and under the Pleasant Street bridge before flowing into the Taunton River. The Taunton River flows south along the eastern portion of the Site. Vegetation in the vicinity of the bridge consists of roadside grasses, with sparse trees north of the bridge. Areas of salt marsh are located northwest and southeast of the bridge.

2.2 Wetland Resource Areas

Site inspections were conducted by BETA’s Wetland Scientist on February 23, 2022, and revisited on April 24, 2025 to identify and delineate the boundaries of existing resource areas within the immediate vicinity of the Project Site. Resource area boundaries were delineated in accordance with the methods developed by the Massachusetts Department of Environmental Protection’s *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act*, second edition dated September 2022, as well as definitions set forth in the Wetland Regulations (310 CMR 10.00) and the Dighton Wetlands Protection Bylaw.

BETA identified two (2) tidal rivers; Muddy Cove Brook and the Taunton River, as well as three (3) areas of Salt Marsh to the northwest, northeast and southeast. Jurisdictional Resource Areas identified on the Site include Land Subject to Coastal Storm Flowage (LSCSF), Rocky Intertidal Shores (RIS / Land Subject to Tidal Action [LSTA]), Land Under the Ocean (LUO), Coastal Bank, Salt Marsh, Land Containing Shellfish

(LCS), Bank of/Land Under Anadromous Fish Run (Fish Run), Bordering Vegetated Wetlands (BVW), and Riverfront Area (RA).

According to the FEMA Flood Insurance Rate Map (FIRM) community panel numbers 25005C0253H and 25005C0261G (Figure 4), dated July 16, 2015 and July 16, 2014 respectively, the Site is located within a Zone AE flood hazard (1% annual chance of flooding) associated with coastal storms. The base flood elevation (BFE) of the onsite Zone AE is 14 feet (NAVD88), which extends several feet over the existing roadway.

These following Resource Areas were delineated on the Site. A complete description of Areas Subject to Protection under the Act and Bylaw is included in Appendix A – Wetland Delineation Report.

2.2.1 Coastal Bank

Coastal Bank exists along the Site in three (3) locations and was delineated in the field based on observed topography with blue flagging as described below in Table 1.

Table 1: Coastal Bank Boundary Description

Flag Series	Waterbody	Coastal Bank Description
CB1 Series Flags CB1-100 to CB1-107 & CB1-200 to CB2-204	Taunton River	The CB1 Series Coastal Bank is associated with a tidally influenced portion of the Taunton River northeast and southeast of the Pleasant Street Bridge. Coastal Bank is apparent in the field and consists of large boulders and adjacent riprap along the Taunton River, which is anticipated to be coincident with the forthcoming topographic assessment of the Coastal Bank boundary. Coastal Bank is anticipated to extend up the grass slope directly northeast of the Pleasant Street Bridge due to a topographic "shelf" present below a clear break in slope. Due to the nature of the rock-lined Coastal Bank, minimal vegetation is present along Coastal Bank and consists of species including beach rose (*Rosa rugosa*), chokeberry (*Aronia floribunda*) and red cedar (*Juniperus virginiana*). The Taunton River is approximately 1,000 feet wide at this location with an unknown water depth and substrate.
CB2 Series Flags CB2-100 to CB2-105	Muddy Cove Brook	The CB2 Series Coastal Bank is associated with Muddy Cove Brook, a tidally influenced perennial tributary to the Taunton River. Coastal Bank is apparent in the field based on an abrupt change in topography and consists of a stone-lined slope. Vegetation present along Coastal Bank includes beach rose and chokeberry. Muddy Cove Brook is approximately 45 feet wide at this location with an unknown water depth and substrate.

2.2.2 Salt Marsh and Bordering Vegetated Wetland

BETA identified three (3) areas of Salt Marsh at the Site and delineated their boundaries based on field observations with pink flagging. An analysis of surveyed topography has been conducted to determine the definitive Salt Marsh boundary by topography. Areas of all flagged Salt Marshes are above the HTL (3.76 feet – NAVD88). Accordingly, portions of the delineated Salt Marsh are defined as Bordering Vegetated Wetland (BVW).

Table 2: Salt Marsh Boundary Description

Flag Series	Location	Salt Marsh Description
SM1 Series Flags SM1-100 to SM1-109	Northeast of the Pleasant Street Bridge, on the waterward side of the parking lot	The SM1 Series flagging delineates a Salt Marsh located between the Taunton River and Tricentennial Park. The boundary was delineated along a change in grade vegetation where phragmites (*Phragmites australis*) transitions to maintained lawn grass. The Salt Marsh is vegetated with species including phragmites and cordgrass (*Spartina patens*). A formal data plot was not performed at this location.
SM2 Series Flags SM2-100 to SM2-111	Directly southeast of the Pleasant Street Bridge	The SM2 Series flagging delineates a Salt Marsh along the western Coastal Bank of the Taunton River and the eastern side of Pleasant Street. This Salt Marsh is located downgradient of a stonewall and maintained grass along Pleasant Street and is vegetated by species including phragmites and cordgrass. A formal data plot was not performed at this location.
SM3 Series Flags SM3-100 to SM3-115	Northwest of the Pleasant Street Bridge along	The SM3 Series flagging delineates a Salt Marsh along the eastern Coastal Bank of Muddy Cove Brook and the western side Pleasant Street. The attached U.S. Army Corps of Engineers Field Data Sheets describe evidence of hydrology, hydric soils, and hydrophytic vegetation at a specific data plot.

2.2.3 Land Under Ocean

NOAA monitoring station (ID# 8447386) data was reviewed to determine that the boundary of LUO at the Site is coincident with elevation -2.26 feet (NAVD88). The limits of LUO are located below the delineated Coastal Bank and Salt Marsh boundaries, and were not flagged in the field.

2.3 Buffer Zones

The Project is located within the 100-foot buffer zone to the Taunton River and Muddy Cove Brook, as well as the 25-foot No Disturb and 50-foot No Structure Zone under the local Bylaw. Buffer Zones on the Site consist of grassed road shoulders, the existing bridge, Tricentennial Park, and the existing paved surface of Pleasant Street.

2.4 Other Sensitive Areas

According to the latest MassGIS data, the Project is not located within NHESP mapped Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife, or an Area of Critical Environmental Concern (ACEC). The site is not located within an NHESP Certified Vernal pool or Potential Vernal Pool. The Site is not located within any Zone I, II or IWPA Groundwater Protection Areas or Zone A, B, or C Surface water Protection Zones. The Project is also not located within a Coldwater Fishery or Outstanding Resource Waters (Figure 2 – Environmental Resource Map). Muddy Cove Brook is a mapped Diadromous Fish Run.

3.0 WORK DESCRIPTION

The Project proposes the replacement of the existing bridge conveying Pleasant Street over Muddy Cove Brook. This will involve the demolition of the existing bridge, replacement of both abutments, construction of a new, widened bridge deck and installation of a concrete sidewalk.

Specifically work includes:

- Installation of erosion and sediment controls at the limit of work prior to construction;
- Installation of water controls and dewatering of the work area around the north and south abutments;
- Demolition and removal of the existing bridge;
- Relocation of existing water and gas utilities;
- Installation of new wingwalls and abutments;
- Installation of new bridge deck and associated structures, including a skewed span of 26 feet and an out-to-out width of 40 feet;
- Full depth roadway reconstruction and grading, including two 11-foot travel lanes with a 2-foot shoulder on the east side;
- Roadway striping with a high visibility crosswalk;
- Installation of a 6-foot concrete sidewalk with granite curbing on the east side;
- Installation of concrete pedestrian curb ramp;
- Installation of new guardrails;
- Installation of rock fill for slope stabilization; and
- Restoration of temporarily disturbed work areas with loam and seed.

As noted above, Site preparation for the Project will include installation of traffic controls, erosion control and water control installation, and establishment of an equipment staging area on the existing paved surface of Pleasant Street and Muddy Cove Lane. Dewatering will be completed by installing turbidity curtains around all proposed in-water work area, followed by installation of metal sheeting to serve as a cofferdam around both abutments. Water within the cofferdam areas will be pumped to a suitable upland area determined by the Contractor. While the area around the abutments will be dewatered, Muddy Cove Brook will continue to ebb and flow through the thalweg during construction.

Work will be completed from the paved surface of Pleasant Street, however the exact equipment to be used during the replacement work will be determined by the contractor. Stockpiling and equipment storage will also occur on the adjacent paved surfaces of Pleasant Street.

In-water work will consist of reestablishing the existing modified rock fill at all four bridge quadrants, as well as installation of cofferdams along the abutments so the bridge abutments can be removed and replaced in the dry. Additional details on anticipated dewatering and water controls are provided in Section 4.2 below.

3.1 WORK WITHIN PROTECTED RESOURCE AREAS

Work is proposed within Resource Areas Subject to Protection under the Bylaw including Coastal Bank, RIS (LSTA), LSCSF, LUO, LCS, Fish Runs and RA. Work will also occur within the locally-defined 25-foot No-Disturbance Zone, the 50-foot No-Structure Zone, the 100-foot Buffer Zone and the 200-foot Buffer Zone. Due to the nature of bridge replacement work, impacts are unavoidable; however, they have been reduced to the maximum extent possible.

Table 3. Summary of Impacts

Resource Area	Temporary Impacts	Permanent Impacts
Rocky Intertidal Shores (Land Subject to Tidal Action)	92 sf	749 sf
Land Under Ocean	453 sf 98.2 cubic yards (cy)	192 sf
Coastal Bank	119 linear feet	0 lf
Land Subject To Coastal Storm Flowage	11,244 sf	0 sf
Riverfront Area	2,814 sf	803 sf

3.1.1 Coastal Bank

The Project proposes 119 lf of temporary impact to Coastal Bank. Coastal Bank at the Site primarily consists of masonry stone walls abutting Muddy Cove Brook and the Taunton River. No alterations are proposed to these walls. The Work proposed within Coastal Bank includes installation of temporary sediment and erosion controls at the limit of work and replacement of the wingwalls.

3.1.2 Rocky Intertidal Shores (Land Subject to Tidal Action)

The Project proposes 749 sf of permanent and 92 sf of temporary impacts to RIS. Temporary impacts are associated with dewatering, installation of cofferdams, and installation of turbidity controls. Permanent impacts are associated with reestablishment of modified rock fill to provide additional sloped protection.

3.1.3 Land Under Ocean / Land Containing Shellfish / Fish Run

The Project proposes 453 sf of temporary impacts and 192 sf of permanent impacts to LUO. Temporary impacts are associated with dewatering the work area, and demolition and replacement of both bridge abutments. Permanent impacts are associated with placement of modified rock fill along bridge abutments to provide scour protection. Completion of the work will also require dredging 98.2 cubic yards of sediment from LUO. This material will be replaced and the area restored following completion of the work.

3.1.4 Land Subject to Coastal Storm Flowage

The entire Project, approximately 11,244 sf, is located within a Coastal FEMA Zone AE (BFE 14 ft) associated with the Taunton River and Muddy Cove Brook. The BFE is several feet above the existing grade of Pleasant Street, therefore these impacts cannot be avoided. The Project proposes minor grade changes along the bridge approach to meet the new bridge elevation; however, the work will maintain flow patterns of flood waters. There is no Regulated Floodway associated with Muddy Cove Brook.

3.1.5 Riverfront Area

The entire Project is located within the RA associated with the Taunton River and Muddy Cove Brook. Temporary impacts total 2,814 sf and are associated with installation of sedimentation and erosion controls, construction access to the bridge and temporary impacts along the vegetated shoulders of Pleasant Street. Permanent impacts total 803 sf and are associated with widening of the roadway to improve geometry and sight distances, as well as construction of a new concrete sidewalk along the eastern side of Pleasant Street.

3.2 Work in Buffer Zones and Local Setbacks

The Project will occur within the 100-foot and 200-foot Buffer Zones to the Taunton River and Muddy Cove Brook, and the local 25-foot No-Disturb and 50-foot No Structure Zones. Work within these areas includes the installation of erosion controls, construction of portions of the concrete sidewalk and guardrails, and roadway reconstruction along Pleasant Street.

Due to the location of existing bridge and roadway infrastructure, all Buffer Zone impacts are unavoidable. Adjacent wetland resources will be protected during construction via the proper installation and maintenance of erosion controls as described in Section 4.1.

4.0 Mitigation Measures

The Project has been designed to avoid disturbances to the extent practicable while providing necessary safety and structural improvements. The areas around the Site are primarily vegetated with roadside grasses, however removal of one (1) tree growing along the northwest abutment is proposed. The Project was designed to avoid impacts to the salt marsh to the northwest and southeast by constructing steep slopes and maintaining the existing roadway cross section north of the Bridge.

No permanent alterations to BVW or Salt Marsh are proposed; therefore, no wetland replication or restoration is proposed. Restoration of Muddy Cove Brook will be provided through the removal of cofferdams to allow water to flow back into the work area. Existing modified rock fill that is moved during construction will be replaced, and supplemented with additional rock fill to provide additional slope protection.

In addition, invasive species will be managed within the limits of work and Best Management Practices will be implemented to prevent establishment of new invasive species during construction.

4.1 Erosion and Sedimentation Controls

Soil erosion and sedimentation control issues have been considered in the design and construction planning process of the proposed Project. The soil erosion and sedimentation control measures will be installed prior to the initiation of construction activities and maintained throughout construction. Straw wattles and embedded silt fence are proposed at the downgradient limit of disturbance during construction. Once established, these measures will be monitored daily until construction activities are complete.

The erosion control barriers will serve as the strict limits of disturbance for the Project. No alterations, including vegetative clearing or surface disturbance, will occur beyond this line. The limits of clearing, grading, and disturbance will be kept to a minimum within the proposed area of construction. All areas outside of these limits, as depicted on the Project site plans, will remain undisturbed in a natural condition. After significant rainstorms, all sedimentation control measures will be inspected and maintained and/or replaced, as necessary.

4.2 Water Controls and Dewatering

In order to complete the replacement of the existing bridge abutments, dewatering will be required to conduct work in dry conditions. While the exact means and methods for water control will be determined by the contractor, it is anticipated that water controls will consist of sheet metal cofferdams. Water will be pumped from inside water control system to a treatment system in an upland area. Again, the exact means and methods of treating the dewatering effluent will be selected by the contractor, however,

methods could include pumping the effluent to a filter bag placed on stone surrounded by sediment controls, to a frac-tank, or to another treatment system. Filtered/treated dewatering effluent will be visually monitored during dewatering to avoid sediment discharges.

4.3 STORMWATER MANAGEMENT

The MassDOT Stormwater Checklist and Stormwater Report have been completed and submitted with this NOI (Appendix B). As described in the Stormwater Report, and according to the Stormwater Management Standards (310 CMR 10.05(6)(k-q)), the Project constitutes a Redevelopment Project because the work will substantially occur within an existing paved roadway, will result in the construction of roadways shoulders, correction of substandard intersections, and widening of less than one (1) lane. Redevelopment Projects are required to meet Standards 1 and 7 through 10 fully; and Standards 2 through 6 only to the maximum extent practicable. The proposed work will result in a minor net increase in impervious area; therefore, the increase in peak rate of runoff will be negligible.

4.3.1 EXISTING STORMWATER MANAGEMENT

Stormwater runoff on Pleasant Street is classified as "country drainage" and does not utilize catch basins or other BMP's. One catch basin is located on Muddy Cove Lane, west of the limit of work, which discharges into Muddy Cove Brook adjacent to the roadway, however, this catch basin is not within the limit of work.

4.3.2 PROPOSED STORMWATER MANAGEMENT

The Project does not propose the installation of stormwater infrastructure. Implementation of Stormwater Control Measures (SCM) was considered; however, improvements are not feasible due to right-of-way constraints. See Section 4.3.4 for an evaluation of stormwater controls and why they are not feasible.

4.3.3 COMPLIANCE WITH STORMWATER STANDARDS

As a Redevelopment Project, the Project is proposed to meet Standards 1, 8, 9 and 10 fully and Standards 2, 3 and 4 to the maximum extent practicable. Standards 5 and 6 do not apply. The Projects compliance with the Stormwater Standards is described below.

LID Measures

LID techniques utilized along portions of the project consist of minimizing disturbance to existing trees and shrubs. The feasibility of using vegetated swales is evaluated in Section 4.3.4.

Standard 1: No Untreated Discharges – Met

No new discharges to Wetland Resource Areas are proposed as part of the project and existing drainage patterns will be maintained.

Standard 2: Peak Rate Attenuation – Maximum Extent Practicable

The Project proposes a minor increase in impervious surface (approx. 1,050 sf). Right-of-way limitations include a narrow right-of-way layout, steep topography, nearby wetland Resource Areas and high groundwater. These conditions restrict opportunities to attenuate stormwater runoff; however, no adverse effects to the surrounding area are anticipated. Additionally, the entire Site is located within LSCSF.

Standard 3: Recharge – Maximum Extent Practicable

As stated in Standard 2, only minor increases are proposed to impervious area and Site constraints limit the opportunity for stormwater improvements. The Site consists of Hydrologic Soils Group (HSG) A and B which are classified as well drained; however, the presence of high groundwater prevents infiltration. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, but no such location exists at the Site. Stormwater runoff will be directed to vegetated roadside areas to provide opportunities for infiltration.

Standard 4: Water Quality – Maximum Extent Practicable

As stated in Standard 2, only minor increases are proposed to impervious area and Site constraints limit the opportunity for stormwater improvements. The Site consists of Hydrologic Soils Group (HSG) A and B which are classified as well drained; however, the presence of high groundwater prevents infiltration. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, but no such location exists at the Site. Stormwater runoff will be directed to vegetated roadside areas to provide opportunities for infiltration. The feasibility of adding specific SCM's such as vegetated swales, infiltration basins and deep-sump catch basins is provided in Section 4.3.4.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs) – Not Applicable

The Project does not propose Land Uses with Higher Potential Pollutant Loads.

Standard 6: Critical Areas – Not Applicable

The Project will not include discharges to any critical areas.

Standard 7: Redevelopment – Met

As a Redevelopment Project, Standards 1, 8, 9 and 10 will be met fully and Standards 2, 3 and 4 to the maximum extent practicable. Standards 5 and 6 do not apply.

Standard 8: Construction Period Pollution Prevention and Erosion and Sediment Control – Met

The project will not disturb greater than one acre; therefore, filing a Notice of Intent with EPA and developing a Stormwater Pollution Prevention Plan (SWPPP) is not required. The Project proposes the use of erosion and sedimentation controls as described in Section 4.1 and shown on the Project Plans, which will be maintained in good working order until permanent stabilization at the Site is achieved.

Standard 9: Long Term Operation and Maintenance Plan – Met

There is no drainage infrastructure within the project limits, stormwater sheet flows to Muddy Cove and the Taunton River. These drainage patterns will be maintained in accordance with standard operations of the Department of Public Works.

Standard 10: Prohibition of Illicit Discharges – Met

There are currently no known illicit discharges within the project limits and new illicit discharges are prohibited.

4.3.4 Evaluation of Alternatives

Various SCM and LID techniques were evaluated during the design of this Project. As described below, several Site constraints prevent the use of SCM's; however, the Project does not propose a significant increase in impervious surface that would increase stormwater runoff from the Site and the proposed LID techniques were presumed to be sufficient.

The use of the following SCM and stormwater Best Management Practices (BMP) were evaluated:

Vegetated Swales

Due to the lack of existing stormwater infrastructure and available space at the Site, the use of vegetated swales is the most feasible treatment method for stormwater runoff. The use of vegetated swales is limited by the constrained Pleasant Street right-of-way and adjacent Resource Areas including the presence of Salt Marsh in the northwest and southeast quadrants. Soils at the Site are listed as well drained; however, high groundwater levels prevent infiltration. Additionally, the Massachusetts Stormwater Standards require that infiltration practices be located a minimum of 50 feet from surface, which is not possible at the Site.

Infiltration/ detention basins

Infiltration and detention basins are fairly large and require installation of additional infrastructure such as inlets and overflow structures. As noted above, the potential infiltration is limited by the presence of high groundwater, and the lack of suitable locations located more than 50 feet from surface waters. Additionally, there are no feasible alternate locations to construct these BMP's in the vicinity of the Site without obtaining easements from private property owners or Article 97 land. This is outside of the scope of the Project and provides limited benefit; therefore, it was determined to be infeasible.

Deep-Sump catch Basins

Due to the Site's low elevation, deep-sump catch basins would be partially submerged at high tide rendering them ineffective. Additionally, the lack of existing stormwater infrastructure requires installation of all associated structures including pipes and outfalls. This installation would require additional excavation within the roadway and LSCSF, and additional impacts to Coastal Bank to install new outfalls. This option requires additional impacts to Resource Areas, with very limited benefit to stormwater quality; therefore, it was not incorporated into the design.

5.0 Alternatives Analysis

Given the location of the existing infrastructure and Resource Areas along Pleasant Street, as well as existing layout constraints, possible alternatives are limited. The following alternatives were considered during the design.

5.1 No Build Alternative

This alternative involves not addressing the deterioration of the existing structure. While this alternative would eliminate the need to impact Resource Areas, existing conditions do not meet current safety standards and have a limited lifespan. This does not meet the Project goals and therefore was not selected as the preferred alternative.

5.2 Footprint Bridge – Preferred Alternative

This alternative involves replacement of the Pleasant Street bridge, without widening the existing abutments or tidal crossing. Due to right-of-way constraints, this alternative would allow for a concrete sidewalk to be constructed on only one side of the road. Widening of the bridge deck allows for additional space for paved shoulders and improved sight lines for traffic turning from Muddy Cove Road, without increasing impacts to Muddy Cove Brook through construction of widened abutments. Replacement abutments would be constructed in the location of the existing structures; therefore, the tidal crossing width would remain unchanged. This alternative meets the Project goals of improving traffic safety and

replacing aging infrastructure, with minimal impacts to adjacent Resource Areas. Therefore, this was selected as the preferred alternative.

5.3 Roadway Widening

This alternative involves full replacement of the Pleasant Street bridge, with a widened roadway layout that can accommodate concrete sidewalks and paved road shoulders on both sides of Pleasant Street. Constructing sidewalks along both sides of the roadway would greatly improve pedestrian safety through the bridge crossing; however, this would require widening the bridge abutments by approximately 2-3 feet along Muddy Cove Brook.

Widening the abutments would result in additional permanent impacts to Muddy Cove Brook and the adjacent Salt Marsh. This alternative has a greater impact to Resource Areas, while providing limited benefit to pedestrians and bicyclists due to the lack of pedestrian infrastructure in the area, therefore this was not selected as the preferred alternative.

5.4 Tidal Crossing Widening

This alternative involves full replacement of the Pleasant Street bridge, with a widened hydraulic opening to reduce the tidal restriction of Muddy Cove Brook. Creating a wider hydraulic opening would require installing the proposed abutments upgradient of the existing structures. Due to right-of-way constraints along Pleasant Street, limited space is available to accommodate the widened crossing. The intersection with Muddy Cove Lane immediately to the south restricts potential widening to the north side of the crossing, where the design would overlap with Resource Areas and protected Article 97 land. This means that the tidal restriction cannot be eliminated without permanent loss of Salt Marsh and loss of land protected under Article 97.

While the existing bridge creates a tidal restriction, the extent of the restriction is limited to the area immediately upstream along Muddy Cove Brook, where it is contained by a dam near County Street. The base 10-year flood elevation of the Taunton River is located above the surface of Pleasant Street; therefore, the tidal restriction does not contribute to coastal flooding in the area. This alternative would require significant additional cost and Resource Area impacts with a limited benefit; therefore, it was not selected as the preferred alternative.

6.0 Regulatory Compliance

The Project is proposed under the provisions specified under Town of Dighton Wetlands Protection Bylaw, which builds upon the provisions of the Massachusetts Wetlands Protection Act pursuant to “Home Rule”. The Project was designed to meet the Performance Standards of the Act, and where more stringent, the Bylaw.

6.1 Massachusetts Stream Crossing Standards

The Project proposes replacement of an existing stream crossing. Muddy Cove Brook is a tidal river therefore it is not subject to the Massachusetts Stream Crossing Standards.

6.2 Town of Dighton Wetland Protection Regulations and Bylaw

The Dighton Wetland Protection Regulations and Bylaw jurisdiction includes Resource Areas subject to Jurisdiction under the Act; however, it does not include performance standards for these Resource Areas. Performance standards outlined in the Act have been provided for completeness.

6.2.1 Coastal Bank

The Coastal Bank located within the Project area is significant to storm damage prevention or flood control because it is a vertical buffer; therefore, the performance standards from 310 CMR 10.30(6) to (8) apply:

- Work will occur downgradient of the retaining wall that constitutes the Coastal Bank, however, the work will not impact its stability. The proposed rock fill will provide slope protection that will improve its function to prevent storm damage.
- Standard 7 does not apply because the seawall structure already exists.
- The existing retaining wall does not provide wildlife habitat.

6.2.2 Rocky Intertidal Shore (Land Subject to Tidal Action)

The Act and the Bylaw do not provide performance standards for RIS; however, the proposed work will not affect the function of this Resource Area and will improve the stability through installation of modified rock fill around the abutments.

6.2.3 Land Under Ocean

LUO on the Site is significant to the protection of marine fisheries, protection of wildlife habitat, storm damage prevention and flood control; therefore, the performance standards from 310 CMR 10.25(3) to (7) apply:

- The Project does not propose improvement dredging for navigational purposes.
- The Project does not propose maintenance dredging for navigational purposes.
- Proposed placement of riprap stone will provide scour protection that reduces impacts of storm damage or erosion.

6.2.4 Land Containing Shellfish

LUO on the Site is significant to the protection of marine fisheries, and LCS; therefore, the performance standards from 310 CMR 10.25(4) to (8) apply:

- The replacement structure will be structurally similar to the existing structure; therefore, the Project does not propose significant changes to water circulation, relief elevation, natural drainage of adjacent land or changes in water quality. The Project also does not propose vehicular traffic that may compact sediment, and will replace all dredged material to preserve the existing sediment grain size.
- The proposed impacts to LCS are temporary in nature, and will be restored to its existing condition following completion of the work.
- The Project does not propose to relocate shellfish.
- The Project does not propose to increase production of LCS.
- The Project does not propose impacts to rare species habitat.

6.2.5 Fish Run

Fish Run on the Site is significant to the protection of marine fisheries; therefore, the performance standards from 310 CMR 10.35(3) to (5) apply:

- The Project does not propose to obstruct fish migration. Stream flow will be maintained through the thalweg throughout construction. Establishment of the work area along both sides of Muddy Cove Brook will temporarily reduce the stream's migratory function; however, stream flow will be fully restored following the completion of work.
- Dredging or discharge of fill material will not occur between March 15th to June 15th.

- Work is not proposed within Rare Species Habitat.

6.2.6 Land Subject to Coastal Storm Flowage

The Act and the Bylaw do not provide performance standards for LSCSF; however, the proposed work will not decrease the area of LSCSF adjacent to the project. Upon completion of this work proposed conditions will generally be consistent with existing conditions. Placement of rock fill will supplement the existing stones present along both abutments, and will not restrict flow or cause an increase in flood stage or velocity. Additionally, it will not change the areas existing function as wildlife habitat.

6.2.7 Riverfront Area

The Project proposes temporary and permanent impacts to the RA to the Taunton River and Muddy Cove Brook, however the performance standards will be met fully.

In accordance with 310 CMR 10.58(4):

a. The Project meets the General Performance Standards for all resource areas within RA.
b. The Project is not located within mapped Rare and Endangered Species Habitat.
c. There are no practicable or substantially equivalent alternatives that would result in less adverse effects on the interest of the Act.
d. The Project does not have a significant adverse impact of the RA:
    1. The Pleasant Street Bridge has existed before 1996. Proposed impacts total less than 5,000 sf, are primarily temporary, and proposed within an area of maintained roadway.
        (a) The existing narrow right-of-way in the vicinity of the bridge means that a 100-foot-wide area of vegetation does not exist between the structure and the roadway. Temporarily cleared vegetation along Pleasant Street will be restored through placement of a grass seed mix.
        (b) The Project qualifies as a Redevelopment Project under the Massachusetts stormwater standards and will meet standards 1 and 7 through 10 fully and 2, 3 and 4 to the extent practicable.
        (c) Riverfront Area in the vicinity of the Project primarily consists of maintained road shoulder, with minimal vegetation that does not provide significant wildlife habitat. Additionally, cleared areas of vegetation will be restored following completion of the work to replace any lost wildlife habitat. There are no vernal pools in the vicinity of the Project.
        (d) Erosion and sedimentation controls will be maintained throughout the Project, and work within Muddy Cove Brook will be conducted in the dry to prevent migration of sediment into the waterway. Erosion controls will only be removed once full stabilization of the Site is achieved.
    2-4. The Project is not within a 25-foot RA, does not propose a septic system, and does not propose a commercial structure, so these Performance Standards are not applicable.

6.2.8 100/200-Foot Buffer Zone

The Bylaw prohibits construction of sub-surface sewage disposal systems within 100 feet of a wetland or within 200 feet of a perennial stream. As this Project does not propose construction of a sub-surface sewage disposal system, it is in compliance with this standard.

6.2.9 50-FOOT BUFFER ZONE

The Bylaw prohibits construction of a dwelling or structure within 50 feet of the outer edge of any wetland. The Project proposes reconstruction of a bridge structure; however, the proposed work will occur within the footprint of the existing bridge, therefore, it is in compliance with this standard.

6.2.10 25-FOOT BUFFER ZONE

The Bylaw establishes a 25-foot minimum undisturbed vegetated buffer zone around all wetlands. Due to the location of the Taunton River and Muddy Cove Brook and Pleasant Street, an undisturbed vegetated buffer does not currently exist. Vegetated portions of the Project area will be restored to the maximum extent practicable following completion of the work.

7.0 SUMMARY

The proposed Pleasant Street Bridge Replacement Project will replace the existing bridge carrying Pleasant Street over Muddy Cove Brook due to structural deterioration. This work will occur within the roadway right-of-way and the existing footprint of the bridge.

MassDOT and the Town of Dighton respectfully requests that the Dighton Conservation Commission find these measures adequately protective of the interests of the Bylaw in the Order of Conditions approving the work as described in the Notice of Intent and accompanying plans.

FIGURES



Figure 1
Site Locus
Pleasant Street Bridge
Dighton, MA

N
W E
S

0 1,000 2,000 Feet

1 inch = 1,000 feet

BETA
IMPROVING COMMUNITIES TOGETHER

Data Source: MassGIS USGS Color Ortho Imagery (2009)

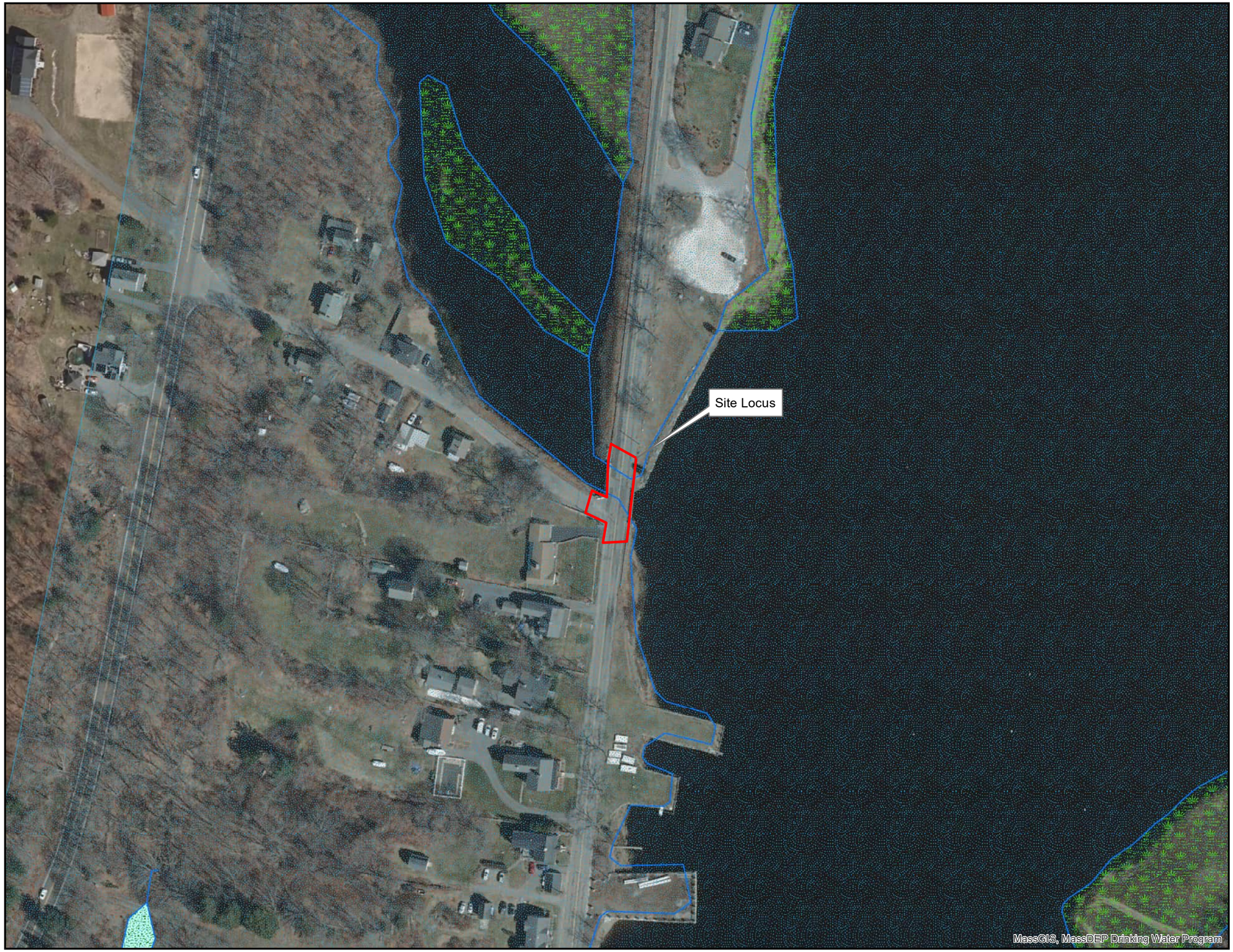


Figure 2
Environmental Resource Areas
Pleasant Street Bridge
Dighton, MA

Legend

Site Locus
CZM Coastal Zone
MassDEP Hydrologic Feature

Resource Type

Bog
Inland Wetlands
Barrier Beach
Coastal Beach/Coastal Dune
Deep Marsh
Salt Marsh
ZONE A
ZONE B
ZONE C
Outstanding Resource Water
DEP Approved Zone I
MassDEP Zone II
MassDEP IWPA

Chapter 91 Jurisdiction

Contemporary High Water
Marsh Boundary - seaward
Historic High Water
Jurisdiction

N
W E
S

0 125 250 Feet

1 inch = 125 feet

Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), Tidelands Jurisdiction Data (2011), Surface Water Protection Areas, MassDEP Grounwater Protection Zones.

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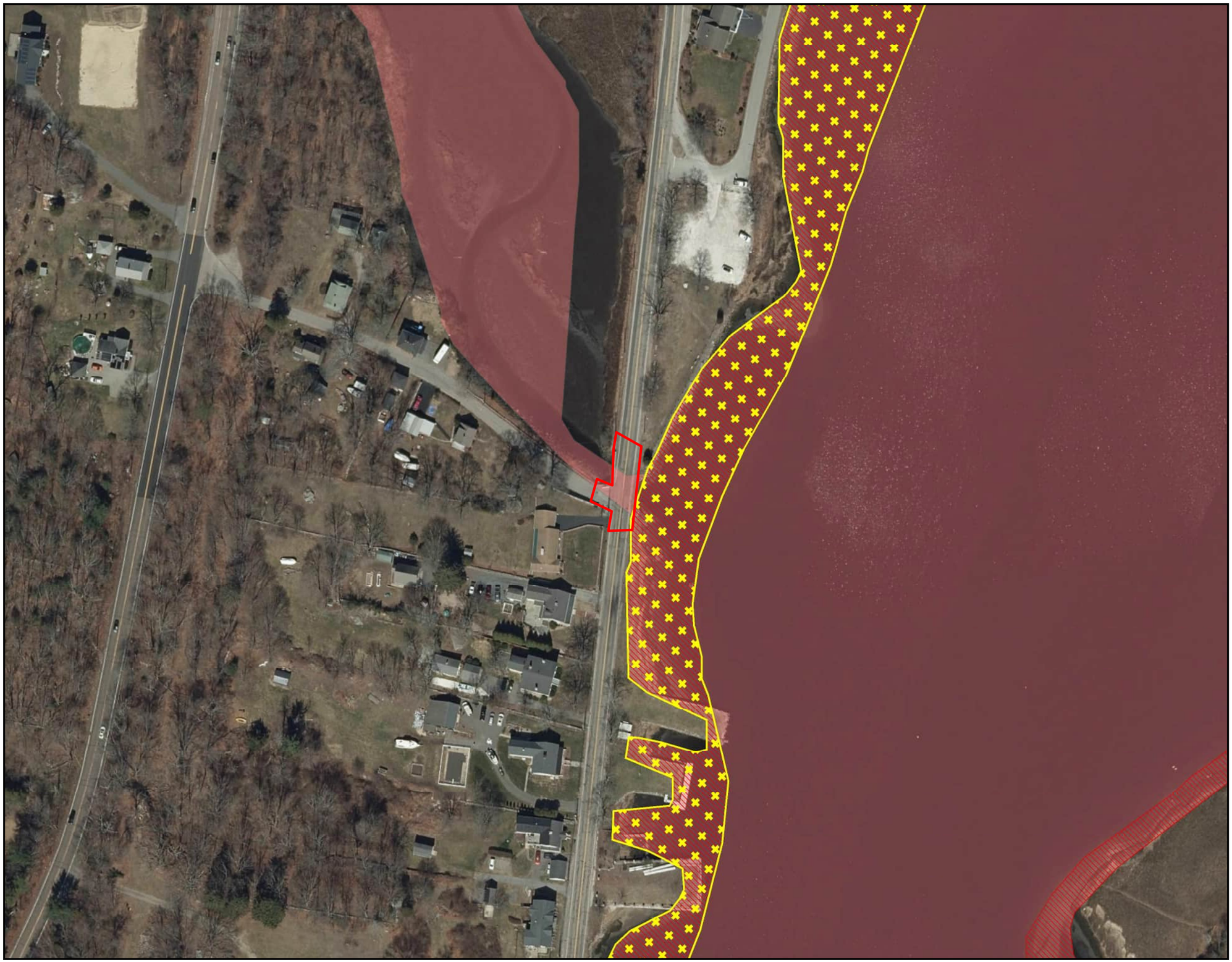


Figure 3
Wildlife Habitat
Pleasant Street Bridge
Dighton, MA

Legend

- Site Locus
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- NHESP Priority Habitat of Rare Species
- NHESP Estimated Habitat of Rare Wildlife

Shellfish Suitability Areas

Habitat

- American Oyster
- Bay Scallop
- Blue Mussel
- European Oyster
- Ocean Quahog
- Quahog
- Razor Clam
- Sea Scallop
- Soft-shelled Clam
- Surf Clam

Designated Shellfish Growing Areas

Classification Type

- Approved
- Conditionally Approved
- Restricted
- Conditionally Restricted
- Prohibited

N
W E
S

0 125 250 Feet

1 inch = 125 feet

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National Flood Hazard Layer FIRMette

FEMA

71°7'30"W 41°48'48"N



71°6'52"W 41°48'21"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/24/2022 at 8:34 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Photographic Documentation

Photo 1



View facing upstream of the Pleasant Street Bridge—facing west

Photo 2



View facing downstream of the Pleasant Street Bridge—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 3



View of the northeast quadrant of the Pleasant Street Bridge—facing north

Photo 4



View of the southeast quadrant of the Pleasant Street Bridge—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022 and April 24, 2025

Photo 5



View of the northwest quadrant of the Pleasant Street Bridge—facing northeast

Photo 6



View of the southwest quadrant of the Pleasant Street Bridge—facing east

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022 and April 24, 2025

Photo 7



View of the Pleasant Street roadway—facing south

Photo 8



View of the intersection of Pleasant Street and Muddy Cove Lane—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 16, 2022

APPENDIX A –Wetland Delineation Report

IMPROVING COMMUNITIES TOGETHER

Resource Area Boundary Delineation
Pleasant Street Bridge Replacement
Dighton, Massachusetts

July 6, 2022
Revised 10/22/2025

On February 23, 2022, BETA Group, Inc. (BETA) conducted resource area boundary identifications/delineations at the Pleasant Street Bridge in Dighton, Massachusetts (the Site). In addition, BETA revisited the Site on April 24, 2025 to confirm the Resource Area boundaries had not changed since the original delineation. This report describes resource areas Subject to Protection under the Massachusetts Wetlands Protection Act (MGL Chapter 131 Section 40 - the Act), Town of Dighton Conservation Commission Bylaw (Article XXVII – the Bylaw), the federal Clean Water Act (33 U.S.C. §1251 et seq (1972)), the federal Rivers and Harbors Act (33 U.S.C. 403 (1899)), the Massachusetts Clean Waters Act (MGL Chapter 21 Section 26-53), and the Massachusetts Public Waterfront Act (MGL Chapter 91) that exist on the Site and methodologies used to delineate their boundaries.

Site Description

The Site consists of the Pleasant Street Bridge and the associated public right-of-way at the confluence of the Taunton River and Muddy Cove Brook (Figure 1 – Site Locus). The Site is bound to the north by Tricentennial Park, to the south by residential development, to the west by Muddy Cove, and to the east by the Taunton River (Figure 2 – Environmental Resources Map and Figure 3 – Wildlife Habitat Map). General improvements at the Site consist of a bridge constructed in 1914 and its abutments/piers, a two (2)-lane bituminous concrete roadway, and public utilities.

According to the USDA Natural Resources Conservation Service – Soil Survey, mapped soils on the Site and in the vicinity of the Site are classified as Charlton-Paxton fine sandy loam and Hinckley loamy sand. The Custom Soil Resource Report for Bristol County, Massachusetts is attached.

State protected resource areas identified on the Site include Land Subject to Coastal Storm Flowage (LSCSF), Land Subject to Tidal Action (LSTA), Land Under the Ocean (LUO), Coastal Bank, Salt Marsh, Land Containing Shellfish (LCS), Bank of/Land Under Anadromous Fish Run (Fish Run), Bordering Vegetated Wetlands (BVW), and Riverfront Area (RA). The MassGIS database was used as the initial step in identifying critical areas on and within proximity of the Site that would be examined more closely if construction activities are proposed. The table below describes selected environmentally critical categories as determined through MassGIS.

Table 1. Selected MassGIS Environmental Data Layers

Mapped Resource on or Within Proximity to Site	Yes	No
Area of Critical Environmental Concern		✓
NHESP Certified Vernal Pool		✓
NHESP Potential Vernal Pool		✓
Coldwater Fisheries Resource		✓
NHESP Estimated Habitat of Rare Wildlife		✓
NHESP Priority Habitat of Rare Species		✓
Outstanding Resource Waters		✓
FEMA Flood Zones	✓	

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Mapped Resource on or Within Proximity to Site	Yes	No
Surface Water Protection Area (Zones A and B)		✓
Interim Wellhead Protection Area		✓
Zone I Wellhead Protection Area		✓
Zone II Wellhead Protection Area		✓
Tidelands – Chapter 91 Jurisdiction	✓	
Designated Port Area		✓
CZM Coastal Zone	✓	
Anadromous Fish Presence	✓	
Land Containing Shellfish	✓	
Wild & Scenic River	✓	

Source: MassGIS

Jurisdictional Wetland Resource Areas – Massachusetts Wetlands Protection Act

A site inspection was conducted by BETA's Wetland Scientists on February 24, 2022 to identify and delineate the boundaries of existing wetland resource areas on the Site and in the immediate vicinity of the Site. Resource area boundaries were identified and delineated in accordance with methods developed by the Massachusetts Department of Environmental Protection and Office of Coastal Zone Management's *Applying the Massachusetts Coastal Wetlands Regulations,* dated 2017; the Massachusetts Department of Environmental Protection's *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act*, dated 1995; as well as definitions set forth in the Wetland Regulations, 310 CMR 10.00. Several Coastal and Inland Areas Subject to Protection under the Act exist on the Site and are described below.

Land Subject to Coastal Storm Flowage – FEMA AE Zone – 310 CMR 10.04

According to the FEMA Flood Insurance Rate Map (FIRM) community panel numbers 25005C0253H and 25005C0261G (Figure 4), dated July 16, 2015 and July 16, 2014 respectively, the Site is located within a Zone AE flood hazard (1% annual chance of flooding) associated with coastal storms. The base flood elevation (BFE) of the onsite Zone AE is 14 feet (NAVD88), which defines the extent of LSCSF. Land below the BFE is subject to jurisdiction under the Act

The 500-year floodplain (0.2% annual chance of flooding) is also present at the Site; however, it is not subject to jurisdiction under the Act.

Land Subject to Tidal Action– 310 CMR 10.04

According to the Statement of Jurisdiction at 310 CMR 10.02 and definition at 310 CMR 10.04, LSTA is defined as land subject to the periodic rise and fall of a coastal water body, including spring tides. The landward boundary of this resource area is the extreme high tide elevation (HTL).

LSTA is present at the Site along the Taunton River and Muddy Cove Brook. National Oceanic and Atmospheric Administration (NOAA) monitoring station (ID# 8447386) data was reviewed to determine that the boundary of LSTA at the Site is coincident with elevation 3.76 feet (NAVD88).

Land Under the Ocean – 310 CMR 10.26

According to 310 CMR 10.25(2), LUO is defined as the "land extending from the mean low water (MLW) line seaward to the municipality's jurisdiction and includes estuaries". The Taunton River and

Muddy Cove Brook are tidally influenced estuarine watercourses; therefore, land under these watercourses is, by definition, LUO.

NOAA monitoring station (ID# 8447386) data was reviewed to determine that the boundary of LUO at the Site is coincident with elevation -2.26 feet (NAVD88).

Coastal Bank – 310 CMR 10.30

According to 310 CMR 10.30(2), Coastal Bank is defined as the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland. Coastal Bank was identified on the Site in accordance with the *Wetlands Program Policy 92-1: Coastal Banks: Definition and Delineation Criteria for Coastal Banks,* issued March 3, 1992.

Coastal Bank exists along the Site in three (3) locations and was delineated in the field based on observed topography with blue flagging as described below in Table 2. An analysis of surveyed topography will be required to confirm the flagging as accurate per the aforementioned MassDEP Wetlands Program Policy.

Table 2: Coastal Bank Boundary Description

Flag Series	Waterbody	Coastal Bank Description
CB1 Series Flags CB1-100 to CB1-107 & CB1-200 to CB2-204	Taunton River	The CB1 Series Coastal Bank is associated with a tidally influenced portion of the Taunton River northeast and southeast of the Pleasant Street Bridge. Coastal Bank is apparent in the field and consists of large boulders and adjacent riprap along the Taunton River, which is anticipated to be coincident with the forthcoming topographic assessment of the Coastal Bank boundary. Coastal Bank is anticipated to extend up the grass slope directly northeast of the Pleasant Street Bridge due to a topographic "shelf" present below a clear break in slope. Due to the nature of the rock-lined Coastal Bank, minimal vegetation is present along Coastal Bank and consists of species including beach rose (*Rosa rugosa*), chokeberry (*Aronia floribunda*) and red cedar (*Juniperus virginiana*). The Taunton River is approximately 1,000 feet wide at this location with an unknown water depth and substrate.
CB2 Series Flags CB2-100 to CB2-105	Muddy Cove Brook	The CB2 Series Coastal Bank is associated with Muddy Cove Brook, a tidally influenced perennial tributary to the Taunton River. Coastal Bank is apparent in the field based on an abrupt change in topography and consists of a stone-lined slope. Vegetation present along Coastal Bank includes beach rose and chokeberry. Muddy Cove Brook is approximately 45 feet wide at this location with an unknown water depth and substrate.

Salt Marsh – 310 CMR 10.32

According to 310 CMR 10.32(2), Salt Marsh is defined as a coastal wetland that extends landward up to the highest high tide line (HTL), that is, the highest spring tide of the year, and is characterized by plants that are well adapted to or prefer living in, saline soils.

BETA identified three (3) areas of Salt Marsh at the Site and delineated their boundaries based on field observations with pink flagging. An analysis of surveyed topography has been conducted to determine the definitive Salt Marsh boundary by topography. Areas of all flagged Salt Marshes are above the HTL (3.76 feet – NAVD88). Accordingly, portions of the delineated Salt Marsh are defined as Bordering Vegetated Wetland (BVW).

Table 3: Salt Marsh Boundary Description

Flag Series	Location	Salt Marsh Description
SM1 Series Flags SM1-100 to SM1-109	Northeast of the Pleasant Street Bridge, on the waterward side of the parking lot	The SM1 Series flagging delineates a Salt Marsh located between the Taunton River and Tricentennial Park. The boundary was delineated along a change in grade vegetation where phragmites (*Phragmites australis*) transitions to maintained lawn grass. The Salt Marsh is vegetated with species including phragmites and cordgrass (*Spartina patens*). A formal data plot was not performed at this location.
SM2 Series Flags SM2-100 to SM2-111	Directly southeast of the Pleasant Street Bridge	The SM2 Series flagging delineates a Salt Marsh along the western Coastal Bank of the Taunton River and the eastern side of Pleasant Street. This Salt Marsh is located downgradient of a stonewall and maintained grass along Pleasant Street and is vegetated by species including phragmites and cordgrass. A formal data plot was not performed at this location.
SM3 Series Flags SM3-100 to SM3-115	Northwest of the Pleasant Street Bridge along	The SM3 Series flagging delineates a Salt Marsh along the eastern Coastal Bank of Muddy Cove Brook and the western side Pleasant Street. The attached U.S. Army Corps of Engineers Field Data Sheets describe evidence of hydrology, hydric soils, and hydrophytic vegetation at a specific data plot.

Land Containing Shellfish – 310 CMR 10.34

Land Containing Shellfish (LCS) is defined as land under the ocean, tidal flats, rocky intertidal shores, salt marsh, and land under salt ponds when any such land contains shellfish. The area below the mean low water elevation of the Taunton River is mapped as suitable for American oyster (*Crassostrea* virginica) and Soft-shell clam (*Mya arenaria*) (Figure 3 – Wildlife Habitat Map). NOAA monitoring station (ID# 8447386) data was reviewed to determine that the boundary of LCS at the Site is coincident with elevation -2.26 feet (NAVD88).

Bank of/Land Under Anadromous Fish Run – 310 CMR 10.35

According to 310 CMR 10.35(2), the definition of Fish Run is the area within estuaries, pond, streams, creeks, lakes, or coastal waters, which is spawning or feeding ground or passageway for anadromous or catadromous fish and which is identified by the Division of Marine Fisheries or has been mapped on the Coastal Atlas of the Coastal Zone Management Program.

NOAA data indicates that the Taunton River at the Site is suitable migrating and foraging habitat for the Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). Division of Marine Fisheries identifies Muddy Cove Brook as migratory habitat for alewife (*Alosa pseudoharengus*), blueback herring (*Alosa*

aestivalis), American eel (*Anguilla rostrata*) and white perch (*Morone americana*). Coastal Bank at the Site that is coincident with the boundary of Fish Run is described above in Table 2.

Bordering Vegetated Wetlands – 310 CMR 10.55

According to 310 CMR 10.55(2), the definition of BVW is freshwater wetlands which border on creeks, rivers, streams, ponds and lakes and are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of BVW is the line within which 50% or more of the vegetation community consists of wetland indicator plants and saturated or inundated conditions exist.

BVW is located within the flagged boundaries of the Salt Marshes identified above in Table 3, between the boundary of the HTL (3.76 feet – NAVD88) and the flagged boundary.

Riverfront Area – 310 CMR 10.58

According to its definition at 310 CMR 10.58(3), the boundary of inland RA is the area of land between a River's mean annual high-water (MAHW) line measured horizontally outward from the River and a parallel line located 200 feet away. A River is any natural flowing body of water that empties to any ocean, lake, pond, or other River flowing throughout the year and is shown as perennial on the current United States Geological Survey or more recent map provided by the Department or has a watershed size of at least 0.50 square miles and a predicted flow rate greater than or equal to 0.01 cubic feet per second at the 99% flow duration using the USGS Stream Stats Method.

The coastal RA boundary is instead measured from the Mean High-Water (MHW) line as determined by the location where arithmetic mean of the high-water heights observed over a specific 19-year metonic cycle meets the shore. According to the nearest NOAA monitoring station located in Fall River, MA (ID# 8447386), the MHW elevation associated with the Taunton River and Muddy Cove Brook is 2.10 feet (NAVD88).

Jurisdictional Wetland Resource Areas – Town of Dighton Conservation Commission Bylaw

While it is understood that MassDOT is exempt from local bylaws, a description of locally-protected resource areas is provided here for completeness. The Bylaw is generally consistent with the provisions of the Act, except for the definition of Vernal Pools which are considered jurisdictional whether or not they are certified by Massachusetts Division of Fish and Wildlife.

The Bylaw also sets forth additional protections for jurisdictional areas through the following setback requirements:

- No subsurface sewage disposal system are permitted within the 100-foot buffer zone of any wetland or within 200 feet of any perennial stream.
- No dwellings or structures may be built within 50 feet from the outer edge of any wetland.
- A 25-foot minimum undisturbed vegetated buffer must be provided to protect wetlands and wildlife.
- Isolated wetlands and vernal pools will be considered wetlands and afforded the same setback distances.

Jurisdictional Wetland Resource Areas – Federal Clean Water Act (Section 404)

Waters of the U.S. (Tidal)

According to 33 CFR §328.3(d), tidal waters are defined as "waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects". Several "tidal waters of the United States" subject to the federal Rivers and Harbors Act, 33 U.S.C. 403 (1899) and the federal Clean Water Act, 33 U.S.C. 1251 et seq (1972) are present at and near the Site

The boundary to "tidal waters of the United States" is the High Tide Line (HTL), which is defined at 33 CFR §328.3(c)(7). The boundary of the HTL is approximated using the "King Tide" elevation (3.76 feet – NAVD88). Construction of any structure in, over, or under tidal waters, or work affecting the course, location, condition, or capacity of tidal waters is Subject to Jurisdiction under Section 10 of the Rivers and Harbors Act. Work that requires filling below the boundary of the HTL onsite is Subject to Jurisdiction under Section 404 of the Clean Water Act.

Waters of the U.S. (Freshwater)

The areas of vegetated wetlands upgradient of the HTL located at the Site are "Waters of the United States," and are therefore subject to the federal Clean Water Act, 33 U.S.C. §1251 et seq (1972). The boundary to "Waters of the United States" is the vegetated wetlands boundary, or, in the absence of vegetated wetlands, is the Ordinary High-Water Mark (OHWM) for non-tidal rivers and streams, as specified at 33 CFR §328.4.

According to 33 CFR §328.3(c)(4), Vegetated Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

The waters of the U.S. located at the Site are only considered freshwater waters of the U.S. where they extend above the HTL.

Jurisdictional Wetland Resource Areas – Massachusetts Clean Waters Act (Section 401)

The limit of jurisdiction under Massachusetts Clean Waters Act (Section 401), as specified in 314 CMR 9.00, is the boundary of federally regulated waters. Exceedances of the jurisdictional threshold under 314 CMR 9.00 require filing for a Water Quality Certification under Section 401. Special protections are given to Salt Marsh under Section 401, as any impacts to Salt Marsh require a 401 WQC be submitted to MassDEP.

Jurisdictional Resource Areas – The Massachusetts Public Waterfront Act (Chapter 91)

Any activity that takes place within Flowed Tidelands or Filled Tidelands requires Chapter 91 authorization. Chapter 91 Jurisdiction exists on the Site within the limits of Flowed Tidelands, the boundary of which is defined by the MHW elevation. According to the NOAA station in Fall River, MA (ID# 8447386), the MHW elevation at the Site is 2.10 feet (NAVD88).

Findings and Recommendations

BETA has identified areas Subject to Protection and/or Jurisdiction under the Act, the Bylaw, the federal Clean Water Act, the Massachusetts Clean Waters Act, and the Massachusetts Public Waterfront Act on or within 100 feet of the Site.

July 6, 2022
Revised 10/22/2025

Attachments: Figure 1 - Site Locus
Figure 2 – Environmental Resource Map
Figure 3 – Wildlife Habitat Map
Figure 4 – FEMA FIRMette
Photographic Documentation
US Army Corps of Engineers Field Data Sheets
Custom Soil Report for Bristol County, Massachusetts

Job No: 22.10328.00



Figure 1
Site Locus
Pleasant Street Bridge
Dighton, MA

N
W E
S

0 1,000 2,000 Feet

1 inch = 1,000 feet

BETA
IMPROVING COMMUNITIES TOGETHER

Data Source: MassGIS USGS Color Ortho Imagery (2009)

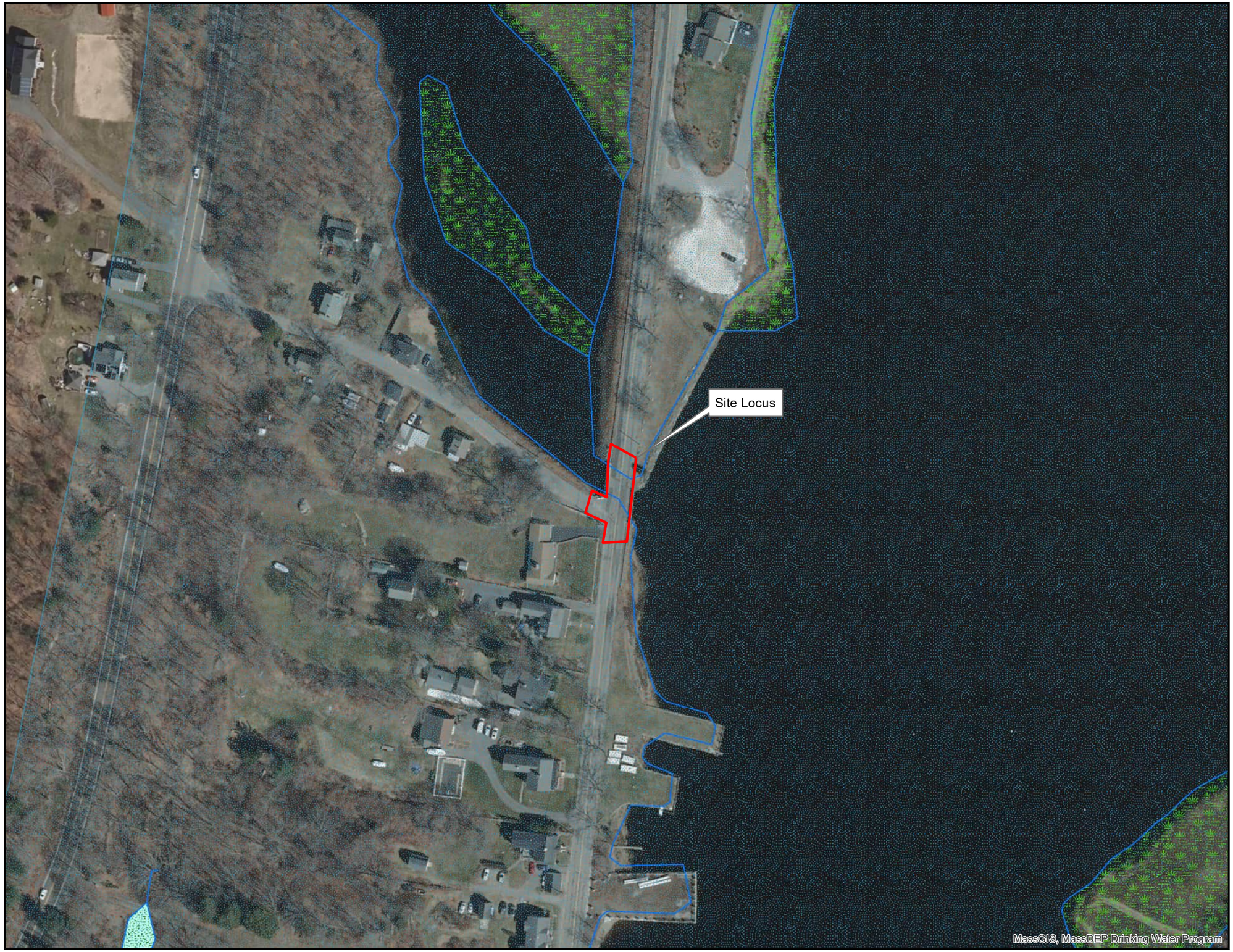


Figure 2
Environmental Resource Areas
Pleasant Street Bridge
Dighton, MA

Legend

- Site Locus
- CZM Coastal Zone
- MassDEP Hydrologic Feature

Resource Type

- Bog
- Inland Wetlands
- Barrier Beach
- Coastal Beach/Coastal Dune
- Deep Marsh
- Salt Marsh
- ZONE A
- ZONE B
- ZONE C
- Outstanding Resource Water
- DEP Approved Zone I
- MassDEP Zone II
- MassDEP IWPA

Chapter 91 Jurisdiction

- Contemporary High Water
- Marsh Boundary - seaward
- Historic High Water
- Jurisdiction

N
W E
S

0 125 250 Feet

1 inch = 125 feet

Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), Tidelands Jurisdiction Data (2011), Surface Water Protection Areas, MassDEP Grounwater Protection Zones.

BETA
IMPROVING COMMUNITIES TOGETHER

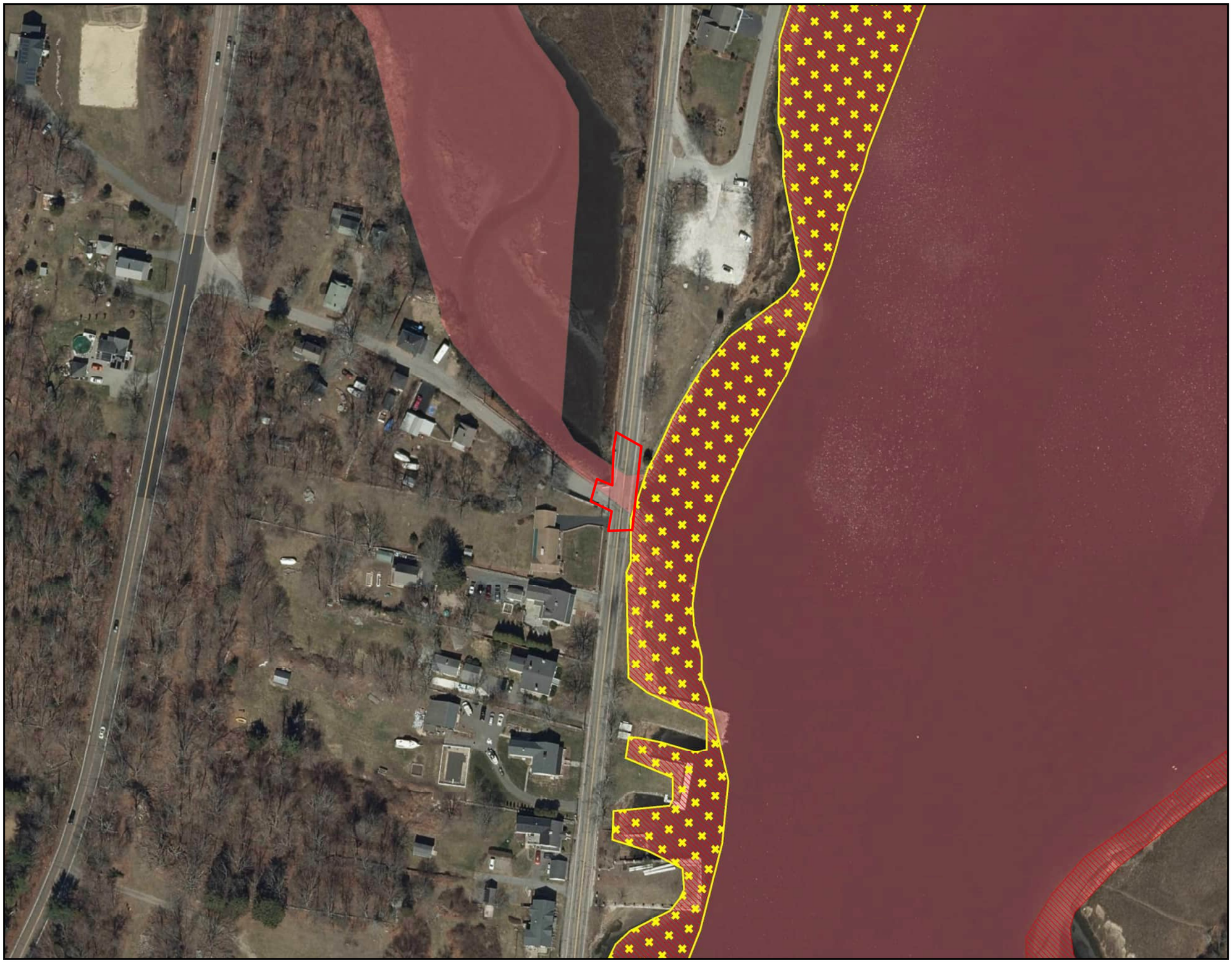


Figure 3
Wildlife Habitat
Pleasant Street Bridge
Dighton, MA

Legend

- Site Locus
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- NHESP Priority Habitat of Rare Species
- NHESP Estimated Habitat of Rare Wildlife

Shellfish Suitability Areas

Habitat

- American Oyster
- Bay Scallop
- Blue Mussel
- European Oyster
- Ocean Quahog
- Quahog
- Razor Clam
- Sea Scallop
- Soft-shelled Clam
- Surf Clam

Designated Shellfish Growing Areas

Classification Type

- Approved
- Conditionally Approved
- Restricted
- Conditionally Restricted
- Prohibited

N
W E
S

0 125 250 Feet

1 inch = 125 feet

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National Flood Hazard Layer FIRMette

FEMA

71°7'30"W 41°48'48"N



71°6'52"W 41°48'21"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/24/2022 at 8:34 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Photo 1



View of the CB2 Series Coastal Bank and the SM3 Series Salt Marsh on the western side of the Pleasant Street Bridge—facing northeast

Photo 2



View of the CB1 Series Coastal Bank on the eastern side of the Pleasant Street Bridge—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 3



View of the wrack line upgradient of the CB1 Series Coastal Bank—facing north

Photo 4



View of the CB1 Series Coastal Bank—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 5



View of the CB1 Series coastal bank adjacent to the Pleasant Street Bridge—facing south

Photo 6



View of the CB2 Series coastal bank adjacent to the Pleasant Street Bridge—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 7



View of the CB3 Series coastal bank—facing west

Photo 8



View of the SM1 Series salt marsh—facing northeast

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 9



View of the SM2 Series salt marsh—facing southeast

Photo 10



View of the SM3 Series salt marsh—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 11



View of the SM3 Series salt marsh—facing north

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pleasant Street Bridge City/County: Dighton Sampling Date: 2/23/2022

Applicant/Owner: Town of Dighton State: MA Sampling Point: SM3-114 UP

Investigator(s): Laura Krause, Jonathan Niro Section, Township, Range: Bristol County

Landform (hillside, terrace, etc.): Roadside slope Local relief (concave, convex, none): convex Slope %: 3-8

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.810931 Long: -71.119649 Datum: WGS84

Soil Map Unit Name: Hinckley loamy sand, 3 to 8 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: SM3-114 UP

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus velutina*	30	Yes	UPL
2. *Acer rubrum*	10	Yes	FAC
3. *Ulmus americana*	5	No	FACW
4.			
5.			
6.			
7.			
	45	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Lonicera japonica*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. *Rubus allegheniensis*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: 15' radius)			
1. *Smilax rotundifolia*	60	Yes	FAC
2.			
3.			
4.			
	60	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	70	x 3 =	210
FACU species	15	x 4 =	60
UPL species	30	x 5 =	150
Column Totals:	120 (A)		430 (B)

Prevalence Index = B/A = 3.58

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SM3-114 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100						Sandy, Fill
5-14	10YR 3/2	100						Stoney fiill

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compacted

Depth (inches): 14

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pleasant Street Bridge City/County: Dighton Sampling Date: 2/23/2022

Applicant/Owner: Town of Dighton State: MA Sampling Point: SM3-114 WET

Investigator(s): Laura Krause, Jonathan Niro Section, Township, Range: Bristol County

Landform (hillside, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope %: 3-8

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.810931 Long: -71.119649 Datum: WGS84

Soil Map Unit Name: Hinckley loamy sand, 3 to 8 percent slopes NWI classification: E2US3N

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: SM3

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: SM3-114 WET

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Phragmites australis*	98	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	98 =Total Cover		
Woody Vine Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	98	x 2 =	196
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	98 (A)		196 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SM3-114 WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	100					Muck	Histosol

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
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- ___ Thick Dark Surface (A12)
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- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
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- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
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- ___ Depleted Dark Surface (F7)
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- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
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- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Bristol County, Massachusetts, Northern Part



February 24, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

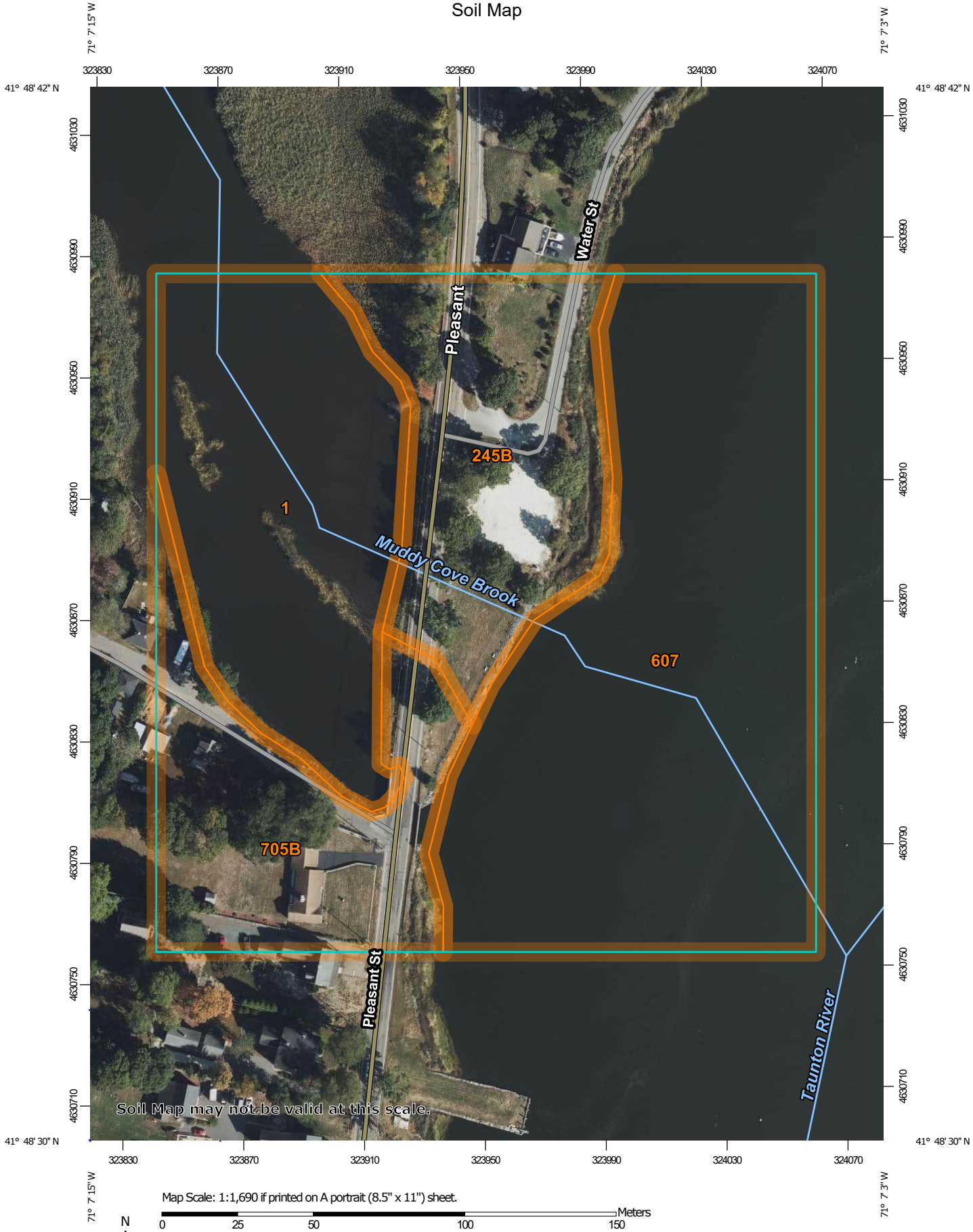
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,690 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bristol County, Massachusetts, Northern Part
Survey Area Data: Version 14, Sep 2, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 25, 2020—Oct 4, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	2.8	22.9%
245B	Hinckley loamy sand, 3 to 8 percent slopes	2.2	18.0%
607	Water, saline	5.2	42.8%
705B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky	2.0	16.2%
Totals for Area of Interest		**12.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Bristol County, Massachusetts, Northern Part

1—Water

Map Unit Setting

National map unit symbol: 997q
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

245B—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8
Elevation: 0 to 1,430 feet
Mean annual precipitation: 36 to 53 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, outwash terraces, kames, kame terraces, moraines, eskers, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent
Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Outwash deltas, outwash terraces, moraines, outwash plains, kame terraces
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Head slope, side slope, base slope, tread
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Agawam

Percent of map unit: 2 percent
Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

607—Water, saline

Map Unit Setting

National map unit symbol: tgbv
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water, saline: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Westbrook

Percent of map unit: 5 percent
Landform: Marshes
Hydric soil rating: Yes

705B—Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2w6b2
Elevation: 0 to 290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, very stony, and similar soils: 50 percent
Paxton, very stony, and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex

Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Paxton, Very Stony

Setting

Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches

Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Woodbridge, very stony

Percent of map unit: 9 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Ridgebury, very stony

Percent of map unit: 4 percent
Landform: Ground moraines, hills, drainageways, drumlins, depressions
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 4 percent
Landform: Ridges, hills
Hydric soil rating: No

Gloucester, very stony

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

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APPENDIX B – Stormwater Report

Stormwater Management Report

Pleasant Street Bridge (D-08-002) Replacement

Dighton, MA

PREPARED FOR

Town of Dighton
Highway Department
2011 County Street
Dighton, MA 02715

PREPARED BY

BETA Group, Inc.
701 George Washington Highway
Lincoln, Rhode Island 02865

10/24/2025
Revised 01/08/2026

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Attachments

Appendix A: MassDEP Checklist for Stormwater Report

Appendix B: Soils and FEMA Information

Appendix C: SCM Constraints Plan

1

Introduction

This Stormwater Management Report has been prepared to demonstrate compliance with the Massachusetts Stormwater Management Standards (the Standards) in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and Water Quality Certification Regulations (314 CMR 9.00). Appendix A includes a completed Massachusetts Department of Environmental Protection (MassDEP) Checklist for Stormwater Report, stamped by a Massachusetts registered professional engineer.

The Project follows the guidance presented in the MassDOT Stormwater Design Guide (SDG), and stormwater management systems are designed in accordance with the Standards.

2

Project Summary

The Applicant, the Town of Dighton, is proposing Project *613636* for the replacement of the Pleasant Street Bridge (Bridge D-08-002) over Muddy Cove Brook which includes work along the adjacent roadway (the Project) located in Dighton, MA.

As proposed, the Project consists of bridge replacement, full depth pavement construction in the vicinity of the bridge and pavement milling and overlay to the north and south of the bridge.

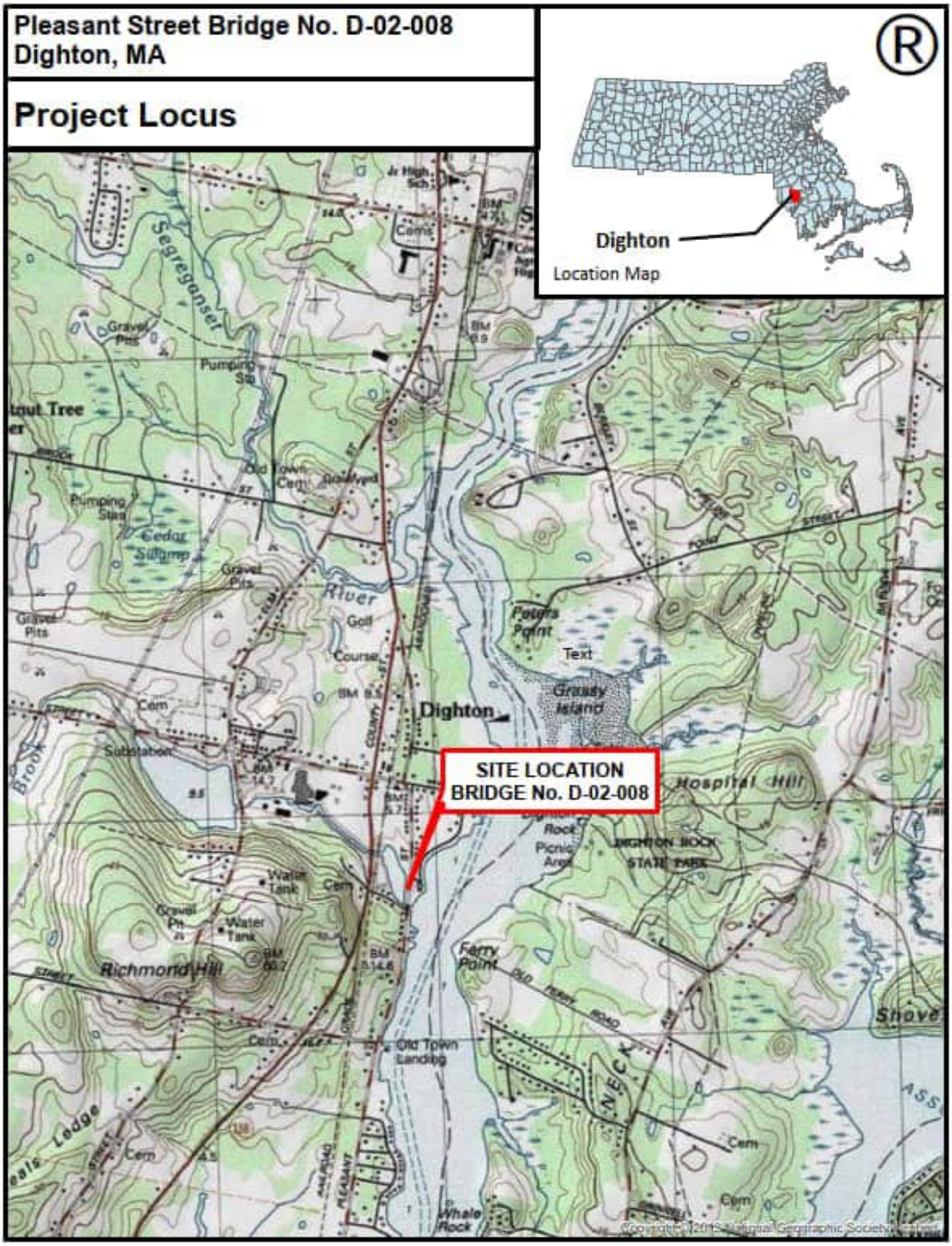
The project area is an approximately 0.05-mile-long section of a roadway which is identified as Pleasant Street that crosses over the Muddy Cove and the work includes temporary and permanent work within the waterbody's footprint. The project also includes portions of Muddy Cove Lane, an intersecting side street.

Land use on surrounding lots includes single family residential properties, woodlands and open space.

Wetland resource areas are located in proximity to the project area, notably including the Muddy Cove Brook and the Taunton River. The project is not considered a Land Use with Higher Potential Pollutant Loads (LUHPPL) and the project is not located within or near to a Zone II or Interim Wellhead Protection Area, any other critical areas, or a NHESP-mapped habitat.

See Figure 1 for the Project Locus Map.

Figure 1 Locus Figure



3

Existing Conditions

Pleasant Street Bridge No. D-08-002 carries Pleasant Street over Muddy Cove Brook in Dighton, MA. The existing Pleasant Street Bridge is a single span bridge with a 27'-6" clear span on a north-south alignment. The bridge was constructed in 1914 and renovated in 1949. This segment of Pleasant Street is classified as an Urban Local Roadway. The roadway varies in width from 24 to 26 feet with grass shoulders along either travel lane.

The project corridor consists of the impervious roadway surface of Pleasant Street and Muddy Cove Lane, impervious concrete parapet barriers on either side of the bridge and the pervious grass shoulders adjacent to the roadway. There are no existing stormwater control measures within the project area. Stormwater sheet flows from the roadway to the grass shoulders, that slope gradually to Muddy Cove Brook and the Taunton River.

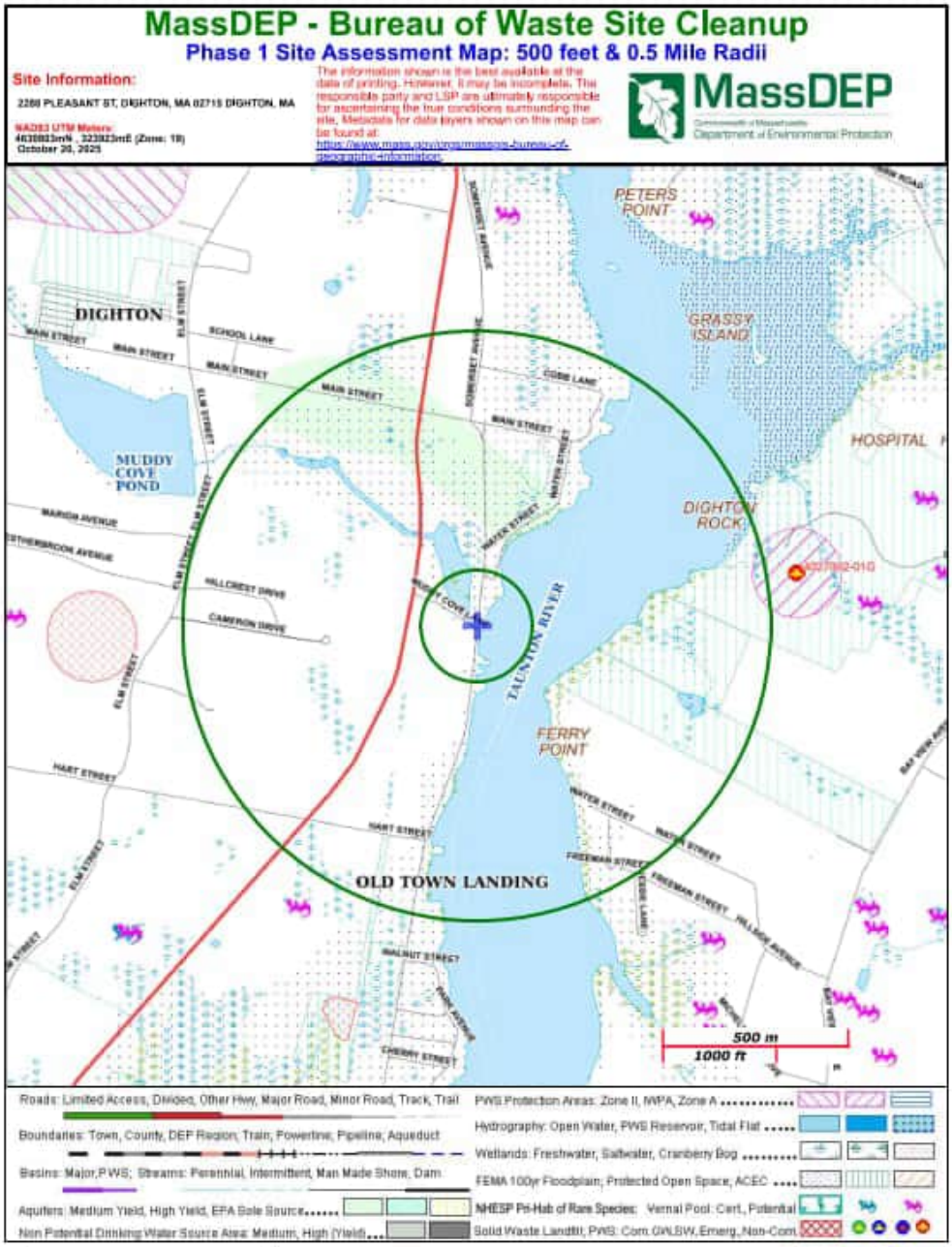
The wetland resource areas identified at the Site are Subject to Jurisdiction under the Dighton Wetlands Bylaw (the Bylaw) and the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131 Section 40 - the Act) as well as the Federal Clean Water Act (33 U.S.C. &1251 et seq (1972) - CWA) and the Massachusetts Clean Waters Act (MGL Chapter 21 Section 26-53 - MCWA).

Resource Areas subject to jurisdiction under the Act and the Bylaw include Land Subject to Coastal Storm Flowage, Land Subject to Tidal Action, Land Under the Ocean, Coastal Bank, Salt Marsh, and Land Containing Shellfish. Refer to Notice of Intent narrative for a thorough description of these areas and a summary of project compliance with these regulations. Resource areas subject to jurisdiction under the CWA and MCWA include the Salt Marsh and Waters of the U.S./Waters of the US within the Commonwealth. Refer to the joint Section 401/404 application narrative for a thorough description of these areas. Impacts to these areas will be minimized, to the extent possible.

Key features in and around the project area include *Muddy Cove Brook and the Taunton River* and are shown on Figure 2.

The Pleasant Street Bridge is located within the National Flood Insurance Program (NFIP) Special Flood Hazard Area (SFHA) Zone AE delineation determined for Taunton River by the Flood Insurance Rate Map (FIRM) No. 25005C0261G dated July 6, 2014. The base flood elevation determined for Zone AE within the project limits is 14 feet. Refer to Appendix B for the FIRM.

Figure 2 Existing Key Features and Wetland Resource Areas



4

Proposed Conditions

The proposed work consists of bridge replacement, full depth pavement construction in the vicinity of the bridge and pavement milling and overlay to the north and south of the bridge, striping of the two travel lanes, construction of a sidewalk and ADA compliant ramps. There will be an increase of approximately 1,050 square feet of impervious area. There is no proposed drainage in the project, all existing drainage patterns will remain, stormwater will sheet off the roadway to the grassed shoulders sloping to Muddy Cove Brook and the Taunton River.

Table 1 provides a breakdown of the impervious area for the Project.

Table 1 Impervious Area

Condition	Impervious Area (sq. ft)
Existing	*9,170*
Proposed	*10,220*
Net	*1,050*

This project includes a minor net increase in impervious surface (1,050± sq. ft.) and will not have a significant impact to the volume and rate of stormwater runoff from the project area. The project is limited by right-of-way constraints, wetland resource areas, areas of steep topography, the presence of and the anticipation of soils with poor infiltrative capacity. As such, opportunities to attenuate peak discharge rates and runoff volume are limited. No adverse impacts to the surrounding area and there is no closed drainage system in the project area. Appendix C contains the SCM Constraints Plan, which outlines the limitations associated with installing an SCM within the project area.

5

Impaired Waters and TMDLs

As described under the previous sections, the Project will discharge to the Taunton River (MA 62-03), which is impaired based on the MassDEP Year 2023 Integrated List of Waters, also known as the 303(d) list.

MassDOT is expecting to receive a Transportation Separate Storm Sewer System (TS4) Permit from EPA, which will require that pollutant reductions presented in the TMDL be met on the watershed scale. As a result, the TMDL reductions do not need to be met by MassDOT on a project-by-project basis, but rather, MassDOT strives to make incremental progress towards achieving the required TMDL pollutant reductions with each project. Incremental progress is achieved through the implementation of SCMs designed to treat for the specific pollutants of concern for waterbodies within the watershed.

Table 2 Impaired Waters and TMDL Information

Water Body	303(d) Category	303(d) Impairments	TMDL	TMDL Pollutant	TMDL Report Name
Muddy Cove Brook	4c	Fish Passage Barrier	No	N/A	N/A
Taunton River (MA 62-03	5	Dissolved Oxygen, Enterococcus, Fecal Coliform	Yes	Pathogens (Fecal Coliform, E. Coli, Enteroccous)	Final Pathogen TMDL for the Taunton River Watershed

The project is a redevelopment with a minor increase to the impervious area proposed. There are several constraints that severely limit the opportunity for stormwater improvements. Soils in the project area are mapped in Hydrologic Soil Group A, but due to high ground water elevations and close proximity of wetland resource areas, infiltration is not possible. As noted in the Stormwater Management Standards, infiltration practices must be located a minimum of 50 feet from surface waters, there are no such locations in project area where treatment would be able to be provided.

6

Stormwater Management Standards

As demonstrated below, the proposed Project complies with the MassDEP Stormwater Management Standards (the Standards). The Project is classified as a limited, redevelopment under the first definition "Maintenance and improvement of existing roadways, including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems and repaving." Work related to the maintenance, repair, and improvement of the bridge is considered a Limited Project.

Standard 1: No New Untreated Discharges

No new stormwater conveyances may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

There are no existing outfalls and no new discharges to Wetland Resource Areas are proposed as part of the project and existing drainage patterns will be maintained – complies with Standard.

Standard 2: Peak Rate Attenuation

Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

This project includes a minor net increase in impervious surface (1,050± sq. ft.) and will not have a significant impact to the volume and rate of stormwater runoff from the project area. The project is limited by right-of-way constraints, wetland resource areas, areas of steep topography and the anticipation of soils with high ground water. As such, opportunities to attenuate peak discharge rates and runoff volume are limited. No adverse impacts to the surrounding area – project complies to the maximum extent practicable.

Standard 3: Recharge

Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures, including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the

required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

As noted in Standard 2, there are only minor increases to impervious area proposed as part of the project and there are several constraints that severely limit the opportunity for additional stormwater improvements. Soils in the project area are mapped in Hydrologic Soil Group A, but due to high water elevations and close to proximity of wetland resource areas, infiltration is not possible. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, there are no such locations in the project area where treatment would be able to be provided – project complies to the maximum extent practicable.

Standard 4: Water Quality Treatment

Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

- *Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained.*
- *Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook.*
- *Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*

As noted in Standard 2, there are only minor increases to impervious area proposed as part of the project and there are several constraints that severely limit the opportunity for additional stormwater improvements. Soils in the project area are mapped in Hydrologic Soil Group A, but due to high water elevations and close to proximity of wetland resource areas, infiltration is not possible. As noted in the Stormwater Management Standards, infiltration practices must be a minimum of 50 feet from surface waters, there are no such locations in the project area where treatment would be able to be provided – project complies to the maximum extent practicable.

Standard 5: Land Uses with Higher Potential Pollutant Loads

For Land Uses with Higher Potential Pollutant Loads (LUHPPLs), source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all LHPPLs cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from LUHPPLs shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

Standard 5 does not apply to the Project. There are no Land Uses with Higher Potential Pollutant Loads within the project area.

Standard 6: Critical Areas

Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical area require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "stormwater discharge" as defined in 314 CMR 3.04(2)(a)1 or (b), to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

Standard 6 does not apply to the Project. There are no Critical Areas near the project area.

Standard 7: Redevelopment

A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

The project is classified as a redevelopment under the first definition "Maintenance and improvement of existing roadways, including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems and repaving." Standards 1, 8, 9, and 10 are met and Standards 2, 3, and 4 are met to the maximum extent practicable. Standards 5 and 6 are not applicable to this project.

Standard 8: Erosion and Sediment Control

A plan to control construction related impacts, including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

The Project will provide erosion and sedimentation controls as shown on the Project Plans, which will be maintained in good working order until stabilization at the Site is achieved. Erosion and sedimentation control measures are also summnarized in the attached Notice of Intents – complies with Standard.

Standard 9: Operation and Maintenance Plan

A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.

There is no drainage infrastructure within the project limits, stormwater sheet flows to Muddy Cove and the Taunton River. These drainage patterns will be maintained in accordance with standard operations of the Department of Public Works – complies with Standard.

Standard 10: Prohibition of Illicit Discharges

All illicit discharges to the stormwater management system are prohibited.

There are currently no known illicit discharges within the project limits and new illicit discharges are prohibited – complies with Standard.

Appendix A: MassDEP Checklist for Stormwater Report

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



1/8/2026
Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

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Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☒ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☐ Use of “country drainage” versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☐ Soil Analysis provided.

☐ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☐ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

☐ Site is comprised solely of C and D soils and/or bedrock at the land surface

☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000

☐ Solid Waste Landfill pursuant to 310 CMR 19.000

☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Massachusetts Department of Environmental Protection
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Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☐ The BMP is sized (and calculations provided) based on:

- ☐ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Massachusetts Department of Environmental Protection
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Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☒ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☒ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☐ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Massachusetts Department of Environmental Protection
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Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☒ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☐ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☐ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☐ Name of the stormwater management system owners;
- ☐ Party responsible for operation and maintenance;
- ☐ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Appendix B: Soils and FEMA Information

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Bristol County, Massachusetts, Northern Part



October 22, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

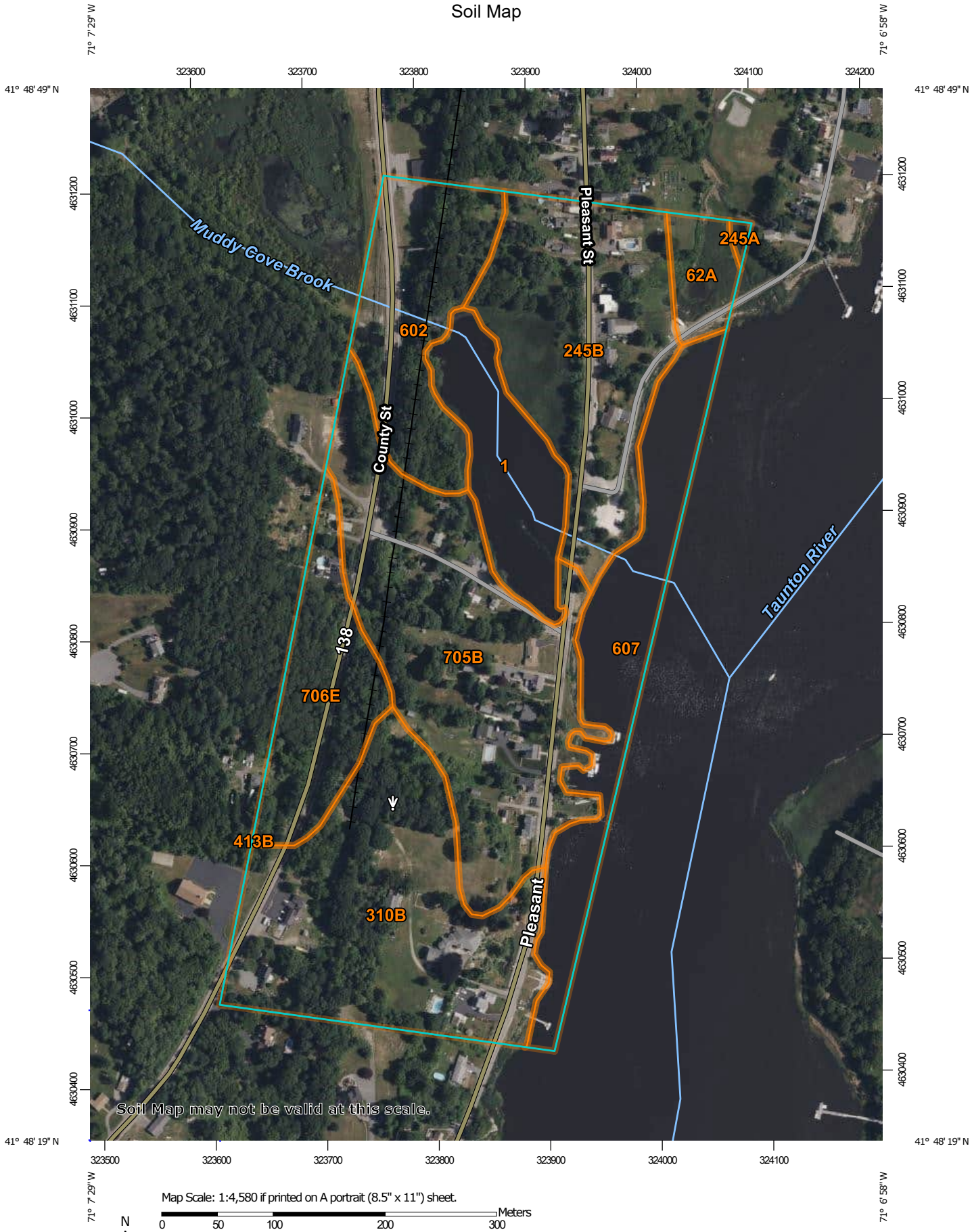
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bristol County, Massachusetts, Northern Part
Survey Area Data: Version 18, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	4.3	7.2%
62A	Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	1.5	2.5%
245A	Hinckley loamy sand, 0 to 3 percent slopes	0.1	0.2%
245B	Hinckley loamy sand, 3 to 8 percent slopes	9.9	16.6%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	12.6	21.2%
413B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very stony	0.0	0.0%
602	Urban land	5.8	9.8%
607	Water, saline	6.9	11.6%
705B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky	13.6	22.9%
706E	Charlton-Rock outcrop-Paxton complex, 15 to 35 percent slopes	4.8	8.1%
Totals for Area of Interest		**59.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a

particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Bristol County, Massachusetts, Northern Part

1—Water

Map Unit Setting

National map unit symbol: 997q
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

62A—Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded

Map Unit Setting

National map unit symbol: 2tyqf
Elevation: 0 to 10 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Westbrook and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Westbrook

Setting

Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Partly-decomposed herbaceous organic material over loamy mineral material

Typical profile

Oe - 0 to 19 inches: mucky peat
Cg - 19 to 59 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.17 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent

Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to strongly saline (0.7 to 111.6 mmhos/cm)
Sodium adsorption ratio, maximum: 33.0
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8w
Hydrologic Soil Group: B/D
Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded
Hydric soil rating: Yes

Minor Components

Ipswich

Percent of map unit: 5 percent
Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded
Hydric soil rating: Yes

Pawcatuck

Percent of map unit: 5 percent
Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded
Hydric soil rating: Yes

245A—Hinckley loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svm7
Elevation: 0 to 1,420 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, kame terraces, outwash plains, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 5 percent
Landform: Outwash deltas, kame terraces, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent
Landform: Outwash deltas, kame terraces, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 4 percent
Landform: Outwash deltas, kame terraces, outwash terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Walpole

Percent of map unit: 1 percent
Landform: Deltas, depressions, depressions, outwash plains, outwash terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

245B—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8
Elevation: 0 to 1,430 feet
Mean annual precipitation: 36 to 53 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, moraines, kames, kame terraces, outwash plains, eskers, outwash terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent
Landform: Outwash deltas, moraines, kames, kame terraces, outwash plains, eskers, outwash terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Outwash deltas, moraines, kame terraces, outwash plains, outwash terraces
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope, head slope, tread
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Hydric soil rating: No

Agawam

Percent of map unit: 2 percent
Landform: Outwash deltas, moraines, kames, kame terraces, outwash plains, eskers, outwash terraces
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Hydric soil rating: No

310B—Woodbridge fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t2ql
Elevation: 0 to 1,470 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Woodbridge, fine sandy loam, and similar soils: 82 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woodbridge, Fine Sandy Loam

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw1 - 7 to 18 inches: fine sandy loam
Bw2 - 18 to 30 inches: fine sandy loam
Cd - 30 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: F144AY037MA - Moist Dense Till Uplands

Hydric soil rating: No

Minor Components

Paxton

Percent of map unit: 10 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Ridgebury

Percent of map unit: 8 percent
Landform: Hills, ground moraines, depressions, drainageways
Landform position (two-dimensional): Toeslope, backslope, footslope
Landform position (three-dimensional): Base slope, head slope, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

413B—Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2w69z
Elevation: 0 to 280 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Charlton, very stony, and similar soils: 45 percent
Paxton, very stony, and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Paxton, Very Stony

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Woodbridge, very stony

Percent of map unit: 9 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Montauk, very stony

Percent of map unit: 6 percent
Landform: Recessionial moraines, hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Ridgebury, very stony

Percent of map unit: 5 percent
Landform: Hills, ground moraines, depressions, drainageways, drumlins
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

602—Urban land

Map Unit Setting

National map unit symbol: 9999
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

607—Water, saline

Map Unit Setting

National map unit symbol: tgbv
Frost-free period: 120 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Water, saline: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Westbrook

Percent of map unit: 5 percent
Landform: Marshes
Hydric soil rating: Yes

705B—Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2w6b2
Elevation: 0 to 290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, very stony, and similar soils: 50 percent
Paxton, very stony, and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Paxton, Very Stony

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Woodbridge, very stony

Percent of map unit: 9 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 4 percent
Landform: Hills, ridges
Hydric soil rating: No

Ridgebury, very stony

Percent of map unit: 4 percent
Landform: Hills, ground moraines, depressions, drainageways, drumlins
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Gloucester, very stony

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

706E—Charlton-Rock outcrop-Paxton complex, 15 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2x1k4
Elevation: 0 to 390 feet
Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, extremely stony, and similar soils: 35 percent
Rock outcrop: 25 percent
Paxton, extremely stony, and similar soils: 20 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Extremely Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hills, ridges
Parent material: Igneous and metamorphic rock

Typical profile

R - 0 to 79 inches: bedrock

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Paxton, Extremely Stony

Setting

Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 10 inches: fine sandy loam
Bw1 - 10 to 17 inches: fine sandy loam
Bw2 - 17 to 28 inches: fine sandy loam
Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Montauk, extremely stony

Percent of map unit: 6 percent

Landform: Recessionial moraines, hills, ground moraines, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Gloucester, extremely stony

Percent of map unit: 6 percent
Landform: Ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Woodbridge, extremely stony

Percent of map unit: 5 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Summit, backslope, footslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Ridgebury, extremely stony

Percent of map unit: 3 percent
Landform: Hills, ground moraines, depressions, drainageways, drumlins
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

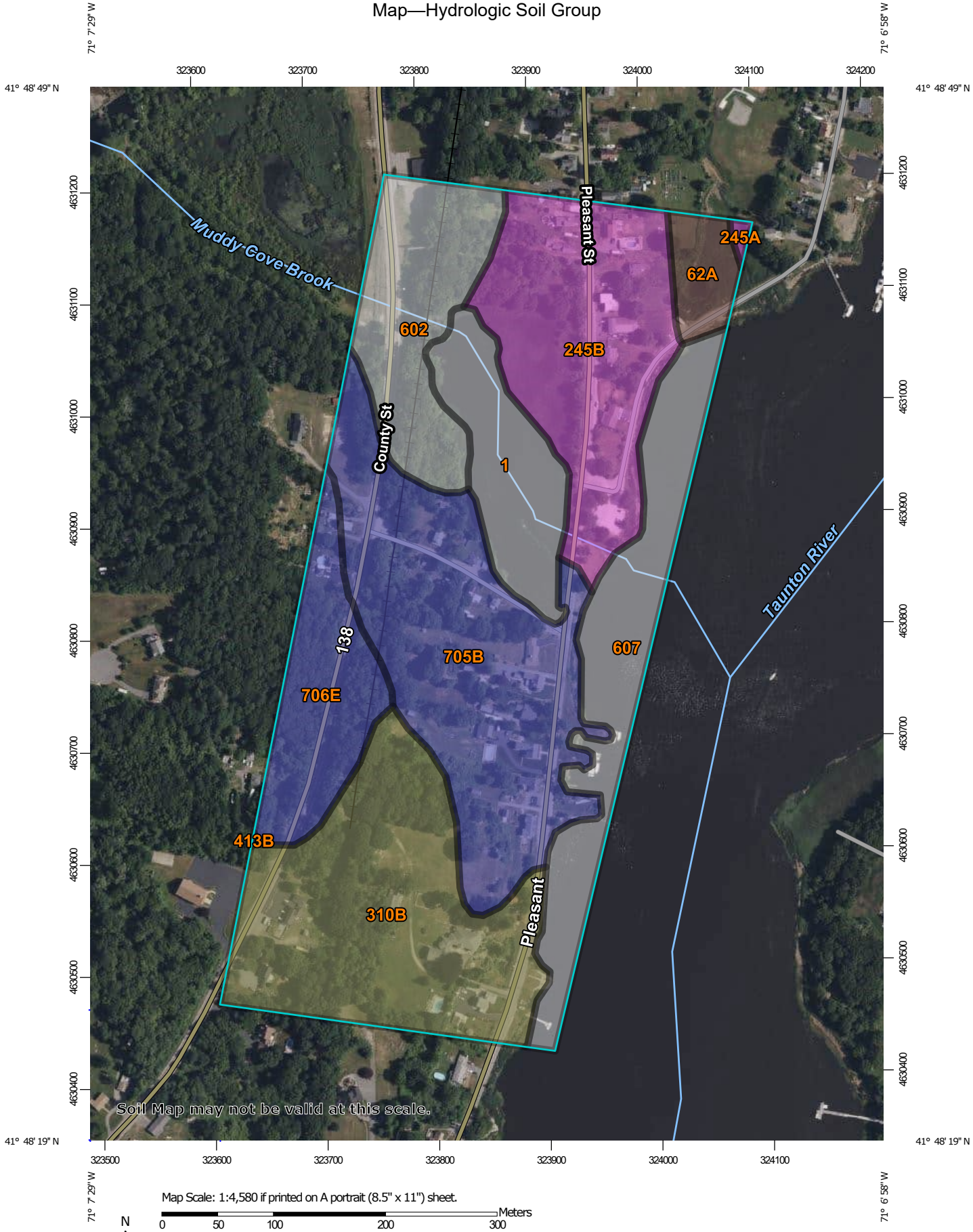
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bristol County, Massachusetts, Northern Part
Survey Area Data: Version 18, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Water		4.3	7.2%
62A	Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	B/D	1.5	2.5%
245A	Hinckley loamy sand, 0 to 3 percent slopes	A	0.1	0.2%
245B	Hinckley loamy sand, 3 to 8 percent slopes	A	9.9	16.6%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	C/D	12.6	21.2%
413B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very stony	B	0.0	0.0%
602	Urban land		5.8	9.8%
607	Water, saline		6.9	11.6%
705B	Charlton-Paxton fine sandy loams, 0 to 8 percent slopes, very rocky	B	13.6	22.9%
706E	Charlton-Rock outcrop-Paxton complex, 15 to 35 percent slopes	B	4.8	8.1%
Totals for Area of Interest			**59.6**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

References

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National Flood Hazard Layer FIRMette

FEMA

71°7'33"W 41°48'49"N



71°6'56"W 41°48'22"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

A00860 - 151

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/15/2022 at 11:46 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

The AE Zone category has been divided by a **Limit of Moderate Wave Action (LiMWA)**. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Massachusetts State Plane Mainland Zone (FIPS zone 2001). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from digital orthophotography. Basemap files were provided in digital form by Massachusetts Geographic Information System (MassGIS). Bristol County orthophotography was collected at 15-cm or 30-cm pixel resolution. Aerial photography is dated April 2008 and March and April 2009. The projection used in the preparation of this map is Massachusetts State Plane Mainland (FIPSZONE2001). The horizontal datum is NAD 83, GRS1980 spheroid.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

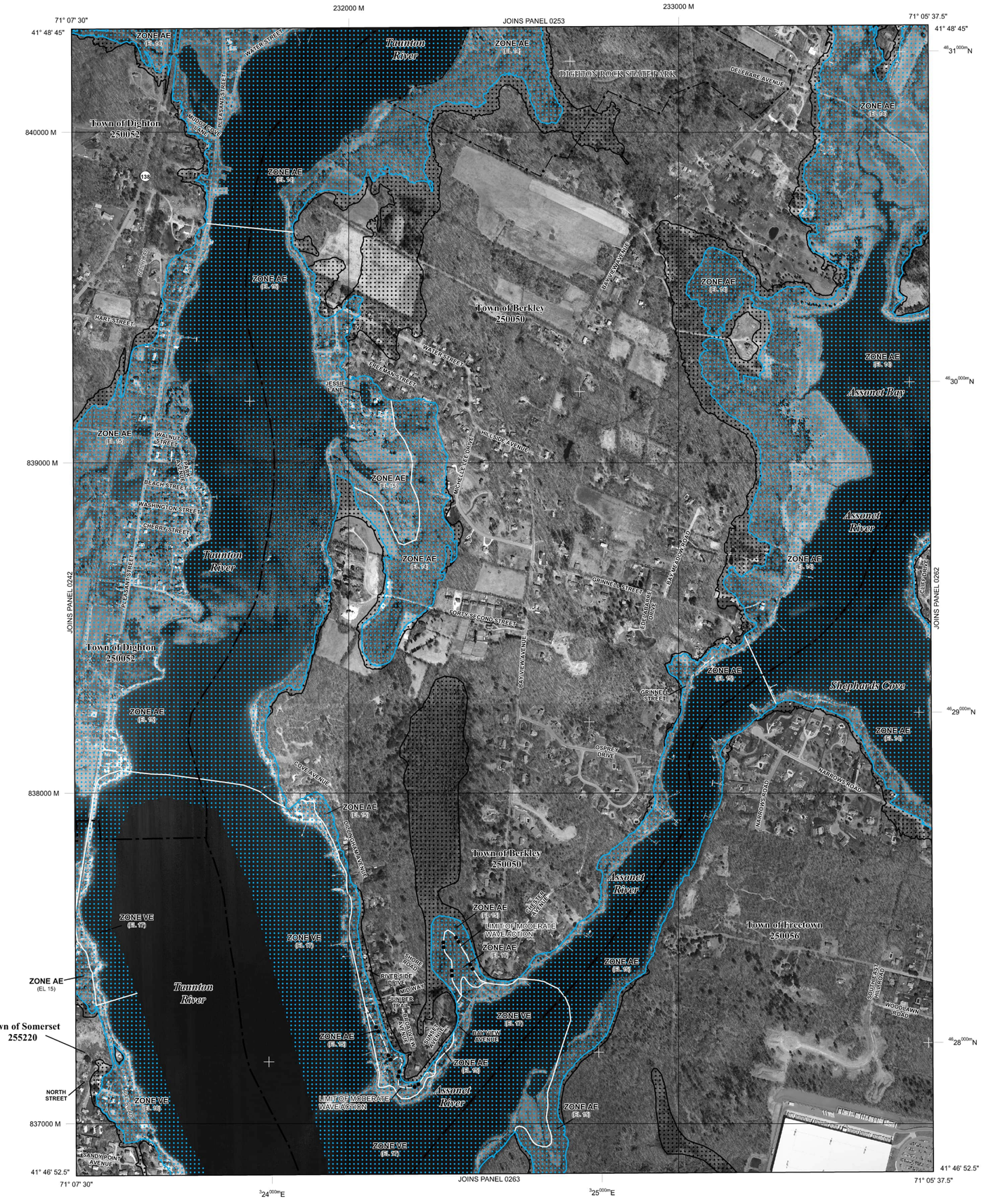
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If you have **questions about this map,** how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

Only coastal structures that are certified to provide protection from the 1-percent-annual chance flood are shown on this panel. However, all structures taken into consideration for the purpose of coastal flood hazard analysis and mapping are present in the DFIRM database in S_Gen_Struct.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- Limit of Moderate Wave Action
- Limit of Moderate Wave Action coincident with Zone Break
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- Culvert
- Bridge
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 4989000 M — 1000-meter grid values: Massachusetts State Plane Mainland Zone (FIPS Zone 2001), Lambert Conformal Conic projection
- 89 000m N — 1000-meter Universal Transverse Mercator grid ticks, zone 19N
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
July 7, 2009
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
July 16, 2014 - to change Base Flood Elevations and Special Flood Hazard Areas, to change zone designations, to update the effects of wave action, to update corporate limits, to add roads and road names, to incorporate previously issued Letters of Map Revision and and to modify Coastal Barrier Resources System units.
For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0261G

FIRM

FLOOD INSURANCE RATE MAP

BRISTOL COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)

PANEL 261 OF 550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BERKLEY, TOWN OF	250050	0261	G
DIGHTON, TOWN OF	250052	0261	G
FREETOWN, TOWN OF	250056	0261	G
SOMERSET, TOWN OF	255220	0261	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 25005C0261G

MAP REVISED JULY 16, 2014

Federal Emergency Management Agency

NOTES TO USERS

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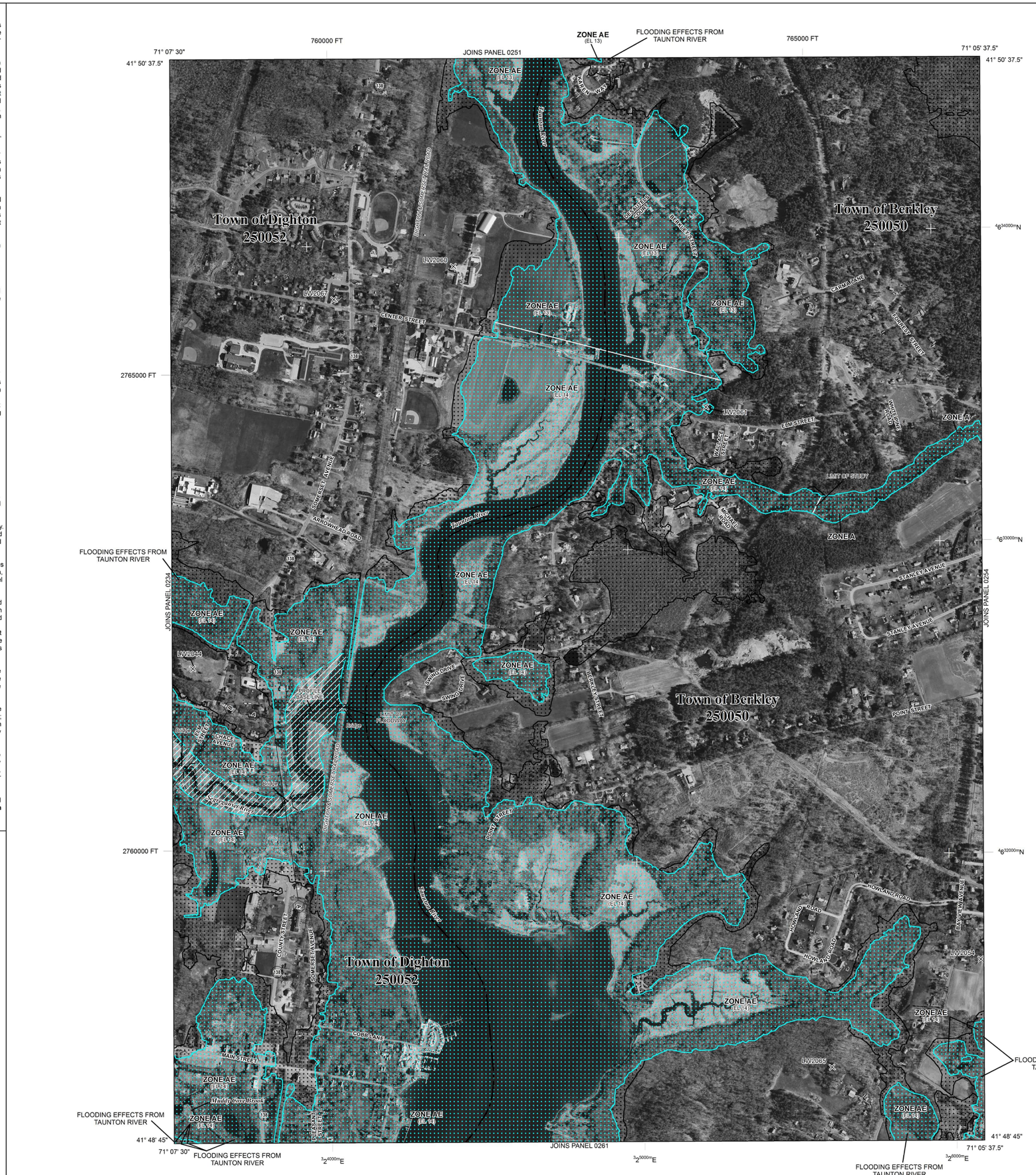
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LEGEND

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ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% Annual Chance Floodplain Boundary
	0.2% Annual Chance Floodplain Boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A	Cross section line
23 — 23	Transect line
	Culvert
	Bridge
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
4889000m N	1000-meter Universal Transverse Mercator grid values, zone 19
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
JULY 7, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
July 16, 2014
July 16, 2015 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to change zone designations, to add roads and road names, and to incorporate previously issued Letters of Map Revision

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0253H

FIRM

FLOOD INSURANCE RATE MAP

Bristol County, Massachusetts
(ALL JURISDICTIONS)

PANEL 253 OF 550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BERKLEY, TOWN OF	250050	0253	H
DIGHTON, TOWN OF	250052	0253	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
25005C0253H
MAP REVISED
JULY 16, 2015

Federal Emergency Management Agency

Appendix C: SCM Constraints Plan

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	1	1
PROJECT FILE NO.	613636		

SCM CONSTRAINTS PLAN

NAD 83

LEGEND

HATCH	DESCRIPTION
	WITHIN 50'
	LAND PROTECTED BY ARTICLE 97

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

PROJECT END
STA 21+00
N2755877.1133
E759756.1123

PROJECT END
STA 13+41
N2756005.9479
E759864.7370

N06° 17' 24.48"E
400.000

CONSTRUCTION BASELINE
RECORD BASELINE

PC +03.30
D=030.7519
R=150.000
T=80.805
PT +83.80

MUDDY COVE LN
MUDDY COVE BROOK
PLEASANT ST

2025 TOWN LAYOUT PENDING
2025 TOWN LAYOUT PENDING

50' NO STRUCTURE ZONE
25' NO DISTURBANCE ZONE
100' BUFFER ZONE

N/F
GARY L. REGO
BK/PG 20178/167
201 MUDDY COVE ROAD

THOMAS & MARJORIE E. CARTIN
BK/PG 71/37
2288 PLEASANT STREET
LCP#24257A

N/F
WILLIAM R. & MARGUERITE KANE
BK/PG 9490/75
2298 PLEASANT STREET

N/F
TOWN OF DIGHTON
BOARD OF SELECTMEN
BK/PG 9130/96
PLEASANT STREET

ZENECA INC
BK/PG 1243/16
PLEASANT STREET

WILLIAM R. & MARGUERITE C. KANE
BK/PG 27781/340
PLEASANT STREET

TOWN OF DIGHTON
PARKS AND RECREATION COMMISSION
BK/PG 1010/101
PLEASANT STREET
PARCEL IS SUBJECT TO ARTICLE 97
AND 4F RESTRICTIONS

TRICENTENNIAL PARK

TOWN OF DIGHTON
CONSERVATION COMMISSION
BK/PG 19498/268
PLEASANT STREET
PARCEL IS SUBJECT TO
ARTICLE 97 AND 4F
RESTRICTIONS

TAUNTON RIVER

SEWER EASEMENT
(OWNER UNKNOWN)
BK. 327 PG. 1
AREA = 315 S.F.

20+00.02 MUDDY COVE=
11+71.54 PLEASANT STREET

TOWN OF DIGHTON
BRIDGE ACCESS/MAINTENACE
EASEMENT
BK/PG 21204/234
THOMAS CARTIN, JR., TRUSTEE
OF THE 2288 PLEASANT

PROPERTY LINE EXTENDED TO PROJECTED M.L.W. LINE
PROJECTED M.L.W. LINE (NOT SURVEYED)
LIMIT OF SURVEY
MEAN LOW WATER (ELEV.=-2.62')
MLW=-2.26'
MHW=2.10'
HTL=3.76'

BENCHMARK: Z-TBM-HYD BNT BOLT-CHIS X
BENCHMARK: Z-TBM-HYD HYD BOLT
BENCHMARK: Z-TBM-HYD BNT BOLT-CHIS X

0 20 50 100
SCALE: 1" = 20'

613636_(CONSTRAINTS PLAN).DWG Plotted on 7-Jan-2026 10:29 AM

Pleasant Street Bridge (D-08-002) Replacement

Long-Term Pollution Prevention Plan

Dighton, MA

PREPARED FOR

massDOT

10 Park Plaza
Boston, MA 02116

PREPARED BY

BETA
www.BETA-Inc.com

BETA Group, Inc
701 George Washington Highway
Lincoln, Rhode Island, 02865

01/14/2026

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Long-Term Pollution Prevention Plan 1

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1.4 Snow and Ice Management 3
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Long-Term Pollution Prevention Plan

This Long-Term Pollution Prevention Plan (LTPPP) describes the approach for pollution prevention and related maintenance activities for the Pleasant Street Bridge (D-08-002) Replacement Project in Dighton, MA. In general, long-term pollution prevention and related maintenance activities will be conducted consistently with:

- The National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer System (MS4),
- MassDOT's anticipated NPDES Transportation Separate Storm Sewer System (TS4) Permit, and
- Measures outlined in MassDOT's Stormwater Management Plan (SWMP).

This LTPPP satisfies the requirements related to pollution prevention under Massachusetts Stormwater Standards 4, 5, 6, and 10.

The Town of Dighton will be responsible for the operation and maintenance of all stormwater management systems within the project area. Questions or concerns regarding activities associated with this Long-Term Pollution Prevention Plan should be addressed to the Town of Dighton's Highway Department located at 2011 County Street, Dighton, MA 02715, phone (774) 218-5339.

1.0 Practices for Long-Term Pollution Prevention

For the facilities covered, long-term pollution prevention includes the following measures.

1.1 Litter Pick-up

The Town of Dighton will conduct litter pick-up adjacent to the limits of work in conjunction with routine road maintenance activities.

1.2 Inspection and Maintenance of Stormwater Assets

The Town of Dighton will conduct annual inspections of the slopes adjacent to all bridge abutments and roadways to ensure banks are stabilized and in good condition. The following table summarizes the potential maintenance actions the Town of Dighton will conduct on slopes adjacent to bridge abutments and roadways in the Project area.

Stormwater Feature	*Potential Maintenance Actions*	
Stabilized Roadway Shoulders and Modified Rockfill along Abutments	• *Remove and properly dispose of accumulated material (e.g., sediment, trash, leaf litter, debris)* • *Mow vegetated areas and remove and dispose of grass clippings* • *Stabilize or reconstruct eroded areas and reseed* • *Replace stones/soil and/or replant vegetation*	• *Remove woody growth* • *Treat invasive plants according to MassDOT Landscape Design Section*

Based on the results of the inspection, repairs will be made in accordance with MassDOT standard practices. Maintenance will be prioritized given the urgency of the required maintenance and availability of staff, contracts, etc. Maintenance may require contracting if existing contracts are unavailable to perform the work. More intensive remedial activities may require permitting and/or an engineering solution.

For maintenance activities that could result in discharges of sediments or other contaminants into wetlands, waterways, or other resource areas regulated under 310 CMR 10.00, the responsible maintenance personnel will employ measures to prevent migration of these sediments/contaminants. Such temporary measures may include, but are not necessarily limited to, the use of siltation barriers, catch basin silt sacks/filter bags, pipe plugs, cofferdams, turbidity curtains, or other practices designed to prevent such discharges.

Where maintenance occurs in areas that are confined, with no risk of discharge to adjacent water bodies, no special measures may be needed. Examples include maintenance of roadside shoulders.

1.3 Maintenance of Landscaped Areas

The Town of Dighton will conduct routine mowing according to standard MassDOT practices.

Except in rare circumstances, the Town of Dighton does not use fertilizers, herbicides, and pesticides for the maintenance of facilities. Exceptions include using fertilizer to ensure the survival of new plantings and herbicides to control invasive plants. Use of fertilizers and herbicides is reviewed and approved by the MassDOT Landscape Design Section and District *5* Environmental Engineer prior to application. Local Conservation Commission review may also be required.

1.4 Snow and Ice Management

The Town of Dighton will conduct Snow and Ice Management consistent with the practices outlined in the MassDOT Snow and Ice Control Program Environmental Status and Planning Report (ESPR), formerly known as the Snow and Ice Control Generic Environmental Impact Report (GEIR).

In accordance with the Snow and Ice Control ESPR, no sand is used on MassDOT properties for snow and ice control.

1.5 Street Sweeping

The Town of Dighton will conduct routine highway cleaning, with a brush-type street sweeper in accordance with standard MassDOT practices. Sweeping will occur annually in the Spring.

1.6 Prohibition of Illicit Discharges

The MassDEP Stormwater Management Standard 10 prohibits illicit discharges to the stormwater management system. Illicit discharges are discharges that do not consist entirely of stormwater, except for certain specified non-stormwater discharges.

In accordance with the existing MS4 permit and anticipated TS4 permit requirements, examples of discharges from the following sources are not considered illicit discharges:

- Firefighting activities*
- Foundation drains
- Water line flushing
- Footing drains
- Landscape irrigation
- Individual residential car washing
- Uncontaminated groundwater
- Rising groundwater
- Diverted stream flows
- Flows from riparian habitats/wetlands
- Potable water sources
- Dechlorinated swimming pool water
- Street wash waters
- Wash water from residential buildings (no detergents)
- Condensation from air conditioning units
- Run-on from private driveways caused by precipitation
- Lawn watering
- Water from crawl space pumps

*Water from firefighting activities is allowed and need only be addressed where they are identified as significant sources of pollutants to waters of the United States.

Based on plan review and confirmation in the field, there are no known or proposed illicit connections associated with the Pleasant Street Bridge (D-08-002) Replacement Project.

1.7 Spill Prevention and Response

The Town of Dighton will implement response procedures within the limits of work for any significant release of hazardous materials such as fuels, oils, or chemical materials that have the potential of discharging to Muddy Cove Brook and Taunton River, both perennial streams.

Reportable quantities will immediately be reported to the applicable Federal, State, and local agencies as required by law. Reportable quantities of chemical, fuels, or oils are established under the Clean Water Act and enforced through MassDEP. The MassDEP Emergency Response Program shall be immediately notified in accordance with required procedures for the report of a release (telephone (888) 304-1133).

The Town of Dighton works with first responders and/or public water supply owners to determine the best approach to protect water supplies and provides training and materials to carry out action plans. In the case of a spill, applicable containment and clean-up procedures will be performed immediately. These procedures are implemented in accordance with the Unified Response Manual at the local level by first responders, which includes the Town of Dighton local public safety departments (e.g., fire, police, public works, board of health). The Town of Dighton will be on-site to aid with traffic control and to provide clean-up supplies, as necessary. Spill material collected during the response will be promptly removed and disposed of in accordance with Federal, State, and local requirements. If necessary, a licensed emergency response contractor will assist in cleanup of releases depending on the amount of the release and the ability of the responsible party to perform the required response.

APPENDIX C – Project Plans

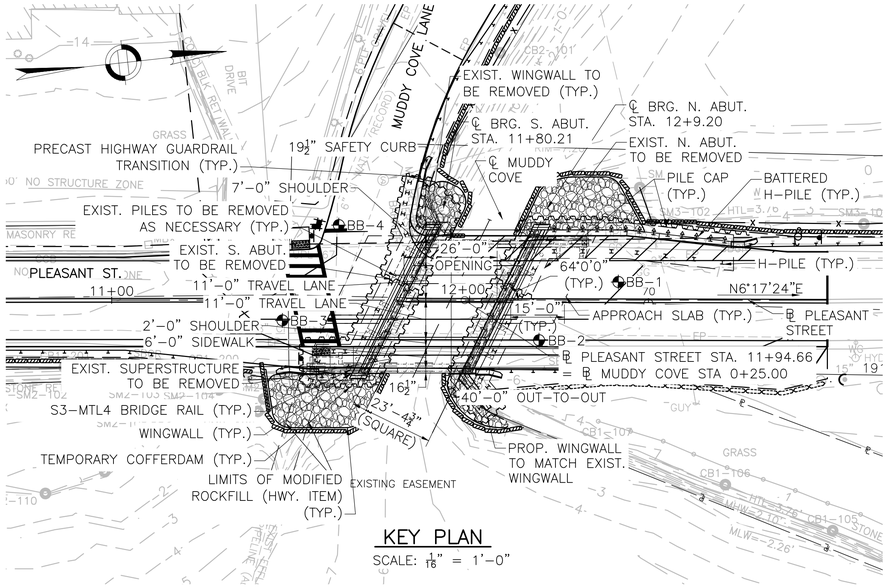
DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	1	7
PROJECT FILE NO.	613636		

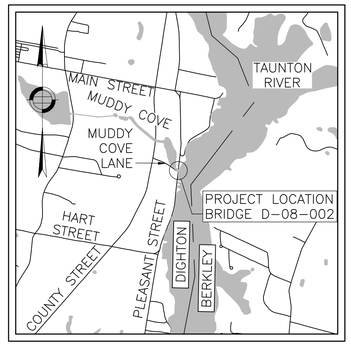
TITLE SHEET

SHEET INDEX

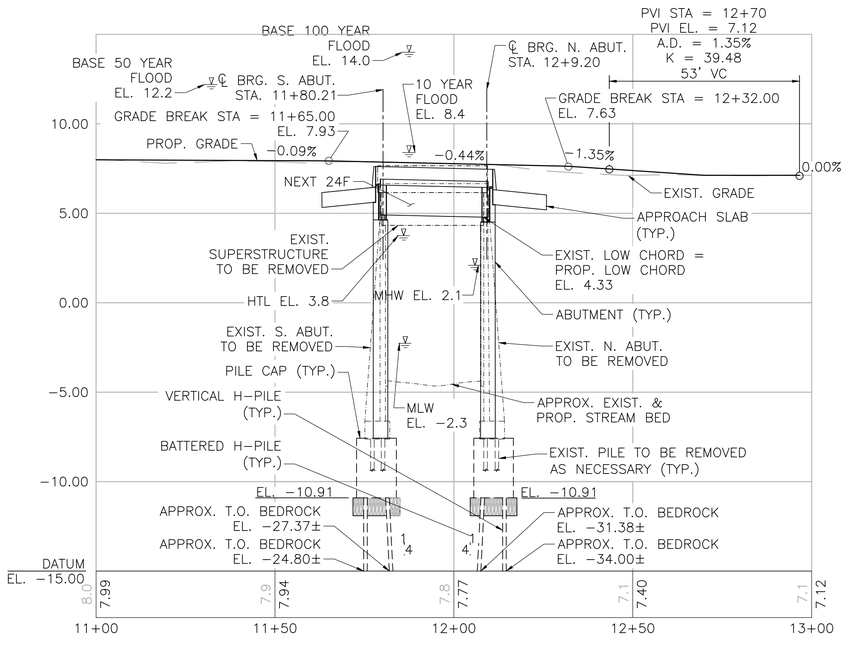
1 TITLE SHEET
2 CONSTRUCTION PLAN
3 GENERAL PLAN & ELEVATION
4 WINGWALL ELEVATIONS
5 DEMOLITION
6 CONSTRUCTION DETAILS
7 IMPACTS PLAN



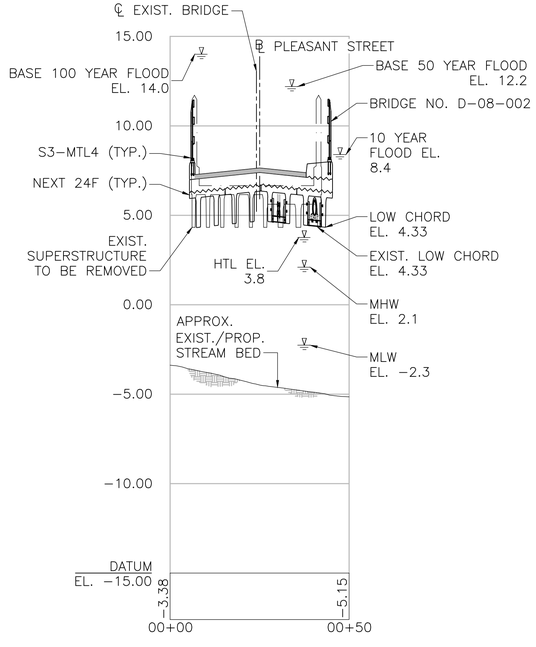
KEY PLAN
SCALE: 1/16" = 1'-0"



LOCUS
SCALE: 1" = 2000'



PLEASANT STREET PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"



MUDDY COVE PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"

BETA GROUP, INC.
701 GEORGE WASHINGTON HIGHWAY,
LINCOLN, RI 02865

COMMONWEALTH OF MASSACHUSETTS
TODD M. WARZECKI
CIVIL ENGINEER
No. 47367
REGISTERED PROFESSIONAL ENGINEER

############	ISSUED FOR CONSTRUCTION

MassDOT Massachusetts Department of Transportation Highway Division

PROPOSED BRIDGE
DIGHTON
PLEASANT STREET
OVER MUDDY COVE BROOK

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

STATE BRIDGE ENGINEER _____ CHIEF ENGINEER _____

SHEET 1 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1)

TITLE PAGE_RECOVER.DWG Plotted on 9-Dec-2025 11:04 AM
First Structural Submittal (S1) 24-October-2025

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 21+01 (MEET EXIST) TO 20+67 RT (MUDDY COVE LN)
TRANSITION TO BRIDGE RAIL STA 20+67 TO 20+33 LT
BRIDGE S3-TL4 GUARDRAIL STA 20+33 TO 12+77 LT
(MUDDY COVE LN AFTER 20+33 AND PLEASANT STREET AFTER 12+73)
TRANSITION TO BRIDGE RAIL STA 12+73 TO 13+07 LT
TRANSITION TO NCHRP 350 GUARDRAIL STA 13+07 TO 13+41 LT (MEET EXIST)

TANGENT END TREATMENT - TL-3 STA 10+00 TO 10+25 RT
GUARDRAIL - TL-3 (SINGLE FACED, DEEP POSTS) STA 10+25 TO 11+17 RT
TRANSITION TO BRIDGE RAIL STA 11+17 TO 11+51RT
BRIDGE S3-TL4 GUARDRAIL STA 11+51 TO 12+05 RT
TRANSITION TO BRIDGE RAIL STA 12+05 TO 12+39 RT
TRAILING ANCHORAGE STA 12+39 TO 12+49 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE UTILITY PLAN

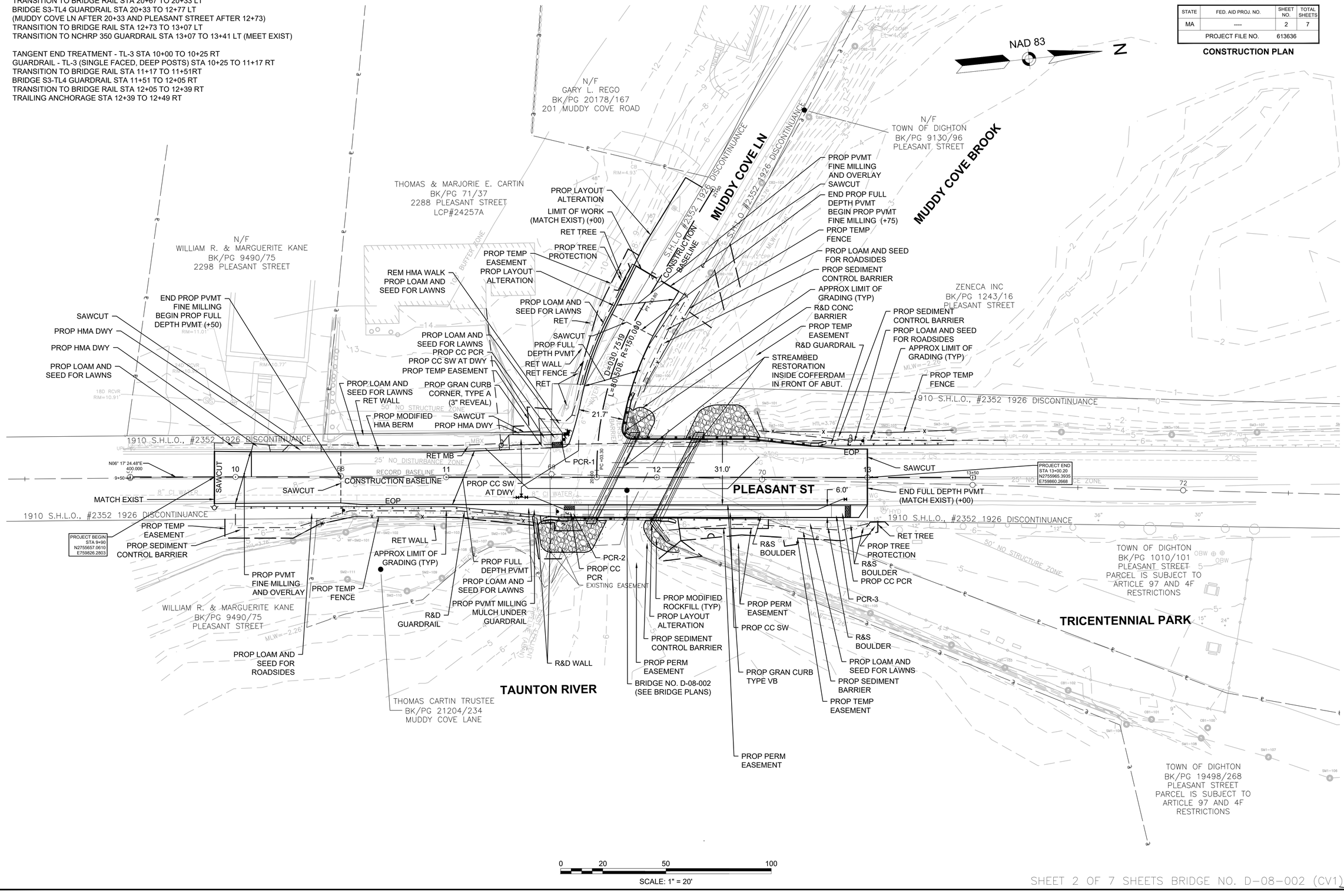
DRAINAGE DETAILS

NONE

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	2	7
PROJECT FILE NO.	613636		

CONSTRUCTION PLAN



CONSTRUCTION PLAN.DWG Plotted on 14-Jan-2026 11:36 AM

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	5	52
PROJECT FILE NO.	613636		

GENERAL PLAN & ELEVATION

GEN PLAN AND ELEVATION.DWG Plotted on 14-Jan-2026 11:39 AM

EXIST. 6"ø WATER
EXIST. SEWER (ABANDONED)
MUDDY COVE LANE
RAILING R = 5'-0" SHALL BE INDIVIDUALLY FABRICATED WITH STEEL PLATES BUTT WELDED AND GROUND SMOOTH
23'-7¼"
2'-6"
(3) SPACES @ 5'-0" = 15'-0"
EXIST. WINGWALL TO BE REMOVED (TYP.)
℄ BRG. S. ABUT. STA. 11+80.21
LIMITS OF MODIFIED ROCKFILL (HWY ITEM) (TYP.)
℄ BRG. N. ABUT. STA. 12+9.20
SM3-101
SM3-102
(10) SPACES @ 6'-6" = 65'-0"
(3) SPACES @ 5'-0" = 15'-0"
3'-7" POST SPACING
BB-4
RELOCATED OHW (BY OTHERS)
℄ MUDDY COVE
19½" SAFETY CURB
7'-0" SHOULDER
12'-7¾" PHASE 2 WORK (SEE SHEET 6 FOR DETAILS)
20'-0"
173°29'25"
EXIST. 2"ø GAS
UPL-67
APPROACH SLAB (TYP.)
26'-0" OPENING (SKEWED)
20'-0"
19'-9¾"
20'-2¼"
PARAFFIN JOINT SPACING
RELOCATED UTILITY POLE (BY OTHERS)
6"ø WATER
EXIST. PILES TO BE REMOVED AS NECESSARY (TYP.)
EXIST. N. ABUT. TO BE REMOVED
PILE CAP (TYP.)
VERTICAL H-PILE (TYP.)
BATTERED H-PILE (TYP.)
WP 1
EXIST. S. ABUT. TO BE REMOVED
11'-0" TRAVEL LANE
40'-0" OUT-TO-OUT
64'0"0" (TYP.)
BB-1
12+00
℄ PLEASANT STREET
N6°17'24"E
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
REMOVABLE PANEL FOR RELOCATED 2"ø GAS (TYP.)
BB-3
15'-0" (TYP.)
WP 2
2"ø GAS (BY OTHERS)
EXIST. 8"ø WATER
℄ PLEASANT STREET STA. 11+94.66 = ℄ MUDDY COVE STA 0+25.00
EXIST. SUPERSTRUCTURE TO BE REMOVED
2'-0" SHOULDER
11'-0" TRAVEL LANE
27'-4½" PHASE 1 WORK (SEE SHEET 6 FOR DETAILS)
BB-2
STREAMBED RESTORATION INSIDE COFFERDAM IN FRONT OF ABUT. (TYP.)
C.I.P. HIGHWAY GUARDRAIL TRANSITION
TEMPORARY COFFERDAM (TYP.)
22'-0"
21'-9⅝"
6'-0" SDWK.
PARAFFIN JOINT SPACING
8"ø WATER
CB1-20U
PRECAST HIGHWAY GUARDRAIL TRANSITION (TYP.)
UPL-62B-GP
16½"
WINGWALL (TYP.)
S3-MTL4 BRIDGE RAIL (TYP.)
2'-6"
(2) SPACES @ 5'-8" = 11'-4"
(4) SPACES @ 6'-6" = 26'-0"
4'-2⅝"
POST SPACING
PERMANENT EASEMENT
TEMPORARY EASEMENT
SM2-104
SM2-105
SM2-107
SM2-106
23'-4¾" OPENING (SQUARE)
PROP. WINGWALL TO MATCH EXIST. WINGWALL
GUY
3
N: 2755884.185'
E: 759872.469'
EL: 6.642'
SPIKE
CB1-107

GENERAL PLAN
SCALE: 3/16" = 1'-0"

BASE 100 YR. FLOOD EL. 14.0±
S3-MTL4 RAILING (TYP.)
℄ BRG. S. ABUT STA. 11+80.21
28'-11⅞" (SKEWED)
26'-0¾" (SQUARE)
℄ BRG. N. ABUT STA. 12+9.20
2'-6"
5'-8"
5'-8"
6'-6" (TYP.)
4'-2⅝"
BASE 50 YR. FLOOD EL. 12.2±
PRECAST GUARDRAIL TRANSITION (BEYOND)
1.5
1
NEXT 24F HTL EL. 3.8±
MHW EL. 2.1±
10 YR. FLOOD EL. 8.4±
LOW CHORD EL. 4.33
C.I.P. GUARDRAIL TRANSITION
12" DEPTH OF MODIFIED ROCKFILL (SEE SHEET 15 FOR DETAIL) (TYP.)
ABUTMENT (TYP.)
APPROX. EXIST/PROP. STREAM BED
MLW EL.-2.3±
STRIATIONS (TYP.)
WINGWALL (TYP.)
3'-0" (MIN.) ROCK SOCKET (BATTERED S. ABUT. PILES ONLY)
12" CRUSHED STONE FOR BRIDGE FOUNDATIONS (TYP.)
PILE CAP (TYP.)
3'-4" (TYP.)
PILE CUTOFF (TYP.) EL. -9.08
APPROX. BEDROCK (TYP.)
B.O. PILE CAP (TYP.) EL. -10.91
N. ABUT BATTERED PILE TIP EL. -31.4±
SE WINGWALL VERTICAL PILE TIP EL. -22.0±
S. ABUT. BATTERED PILE TIP EL. -26.9±
NE WINGWALL VERTICAL PILE TIP EL. -34.0±

GENERAL ELEVATION
SCALE: 3/16" = 1'-0"

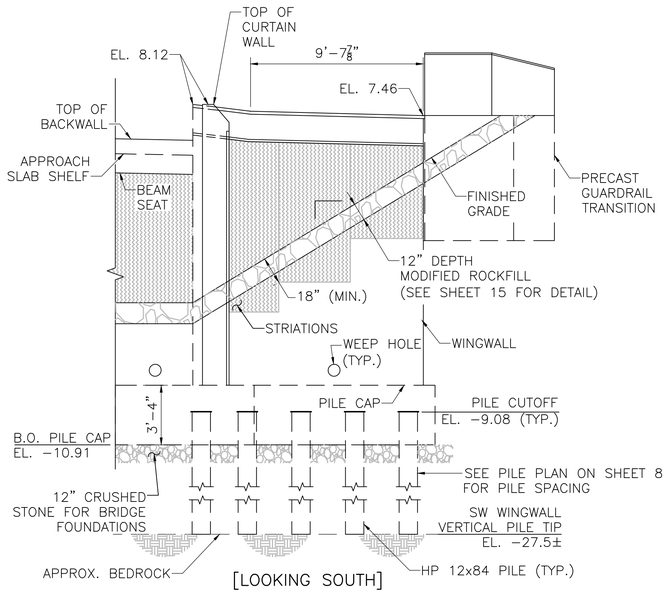
########## #	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	4	7
PROJECT FILE NO.	613636		

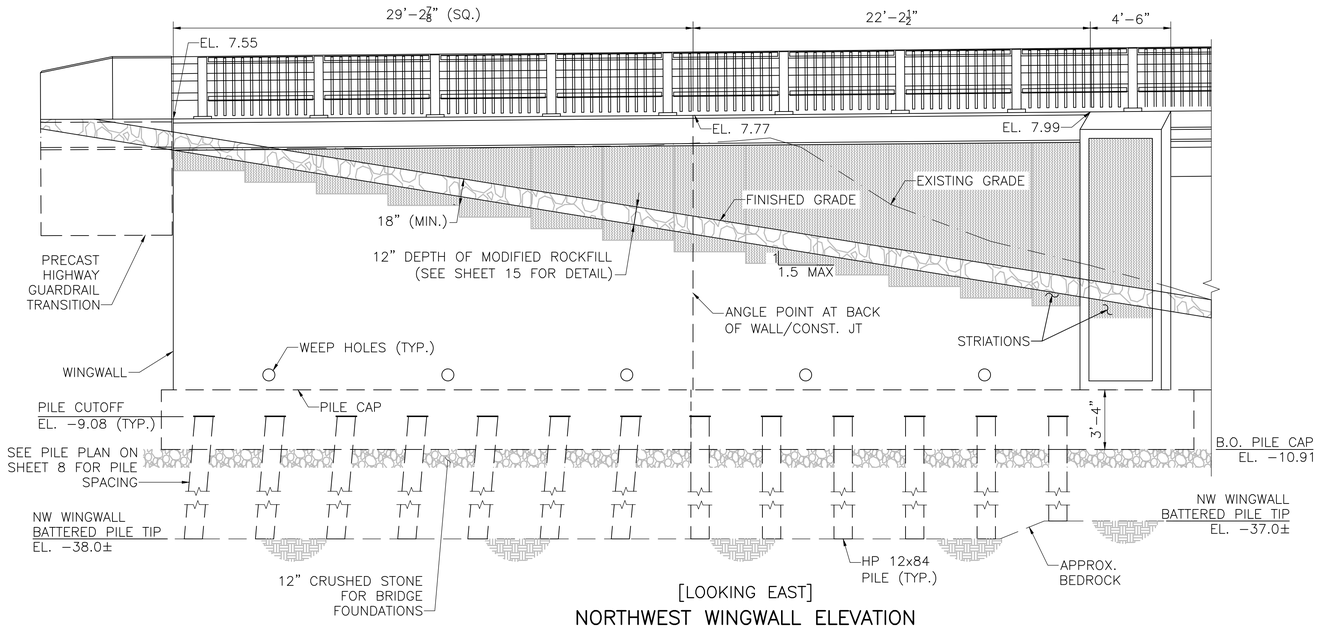
WINGWALL ELEVATIONS



[LOOKING SOUTH]

SOUTHWEST WINGWALL ELEVATION

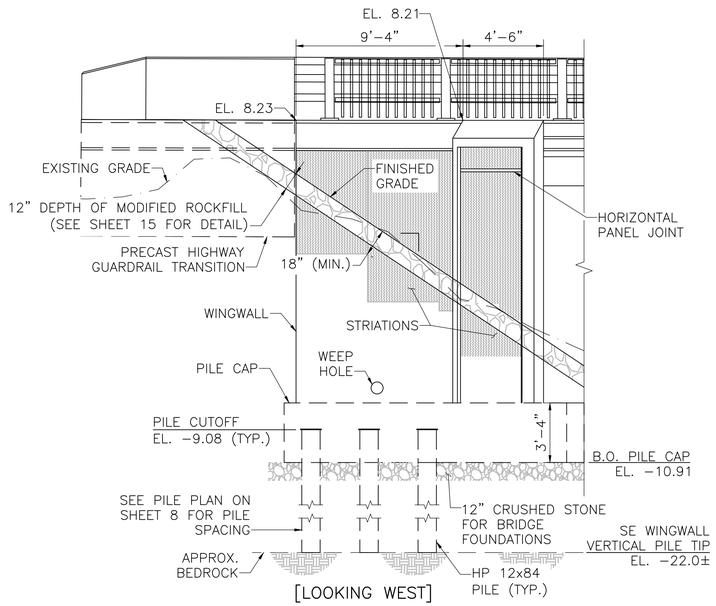
SCALE: ¼" = 1'–0"



[LOOKING EAST]

NORTHWEST WINGWALL ELEVATION

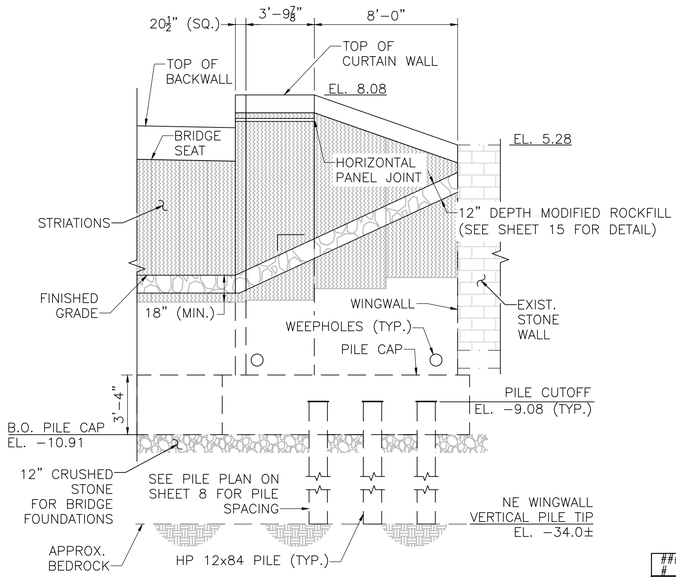
SCALE: ¼" = 1'–0"



[LOOKING WEST]

SOUTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'–0"



[LOOKING NORTH]

NORTHEAST WINGWALL ELEVATION

SCALE: ¼" = 1'–0"

########## #	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

WINGWALL ELEVATIONS.DWG Plotted on 9-Dec-2025 11:27 AM

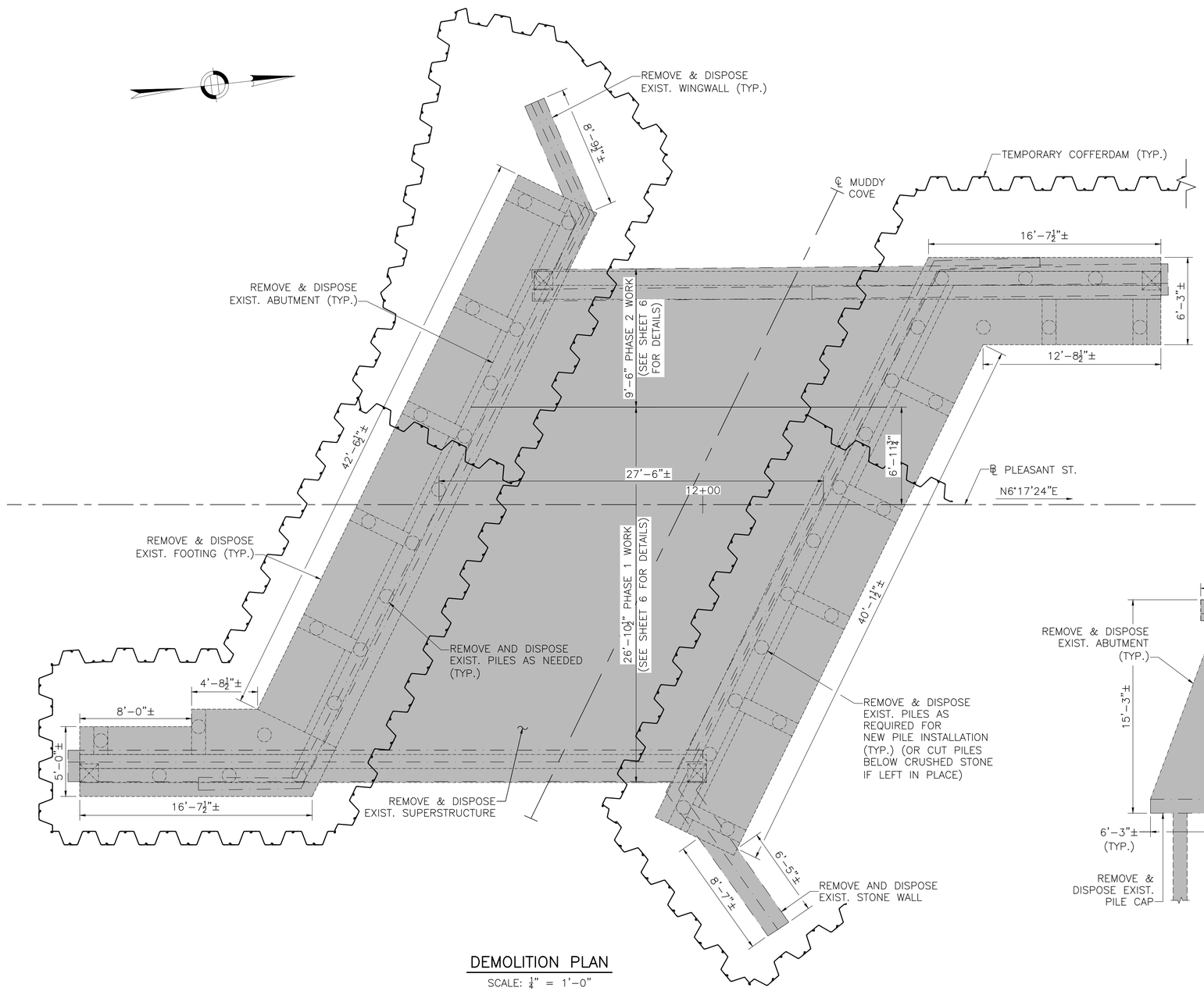
NOTES:

1. TEMPORARY COFFERDAM TO BE PUT IN PLACE ONCE EXISTING SUPERSTRUCTURE IS REMOVED

DIGHTON
PLEASANT STREET

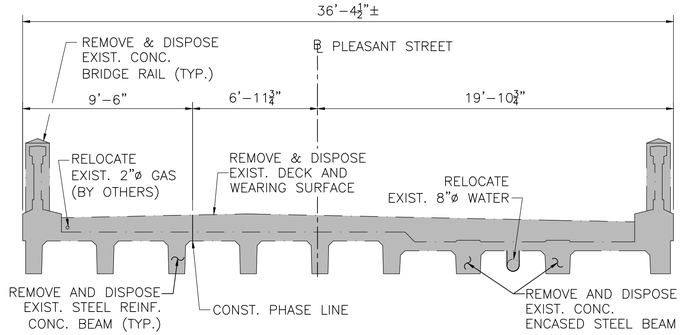
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	5	7
PROJECT FILE NO.	613636		

BRIDGE PHASING



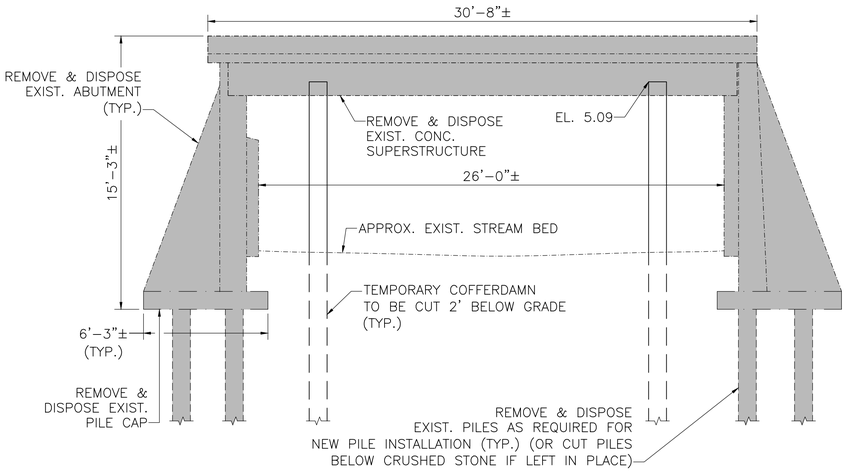
DEMOLITION PLAN

SCALE: ¼" = 1'-0"



DEMOLITION CROSS SECTION

SCALE: ¼" = 1'-0"



DEMOLITION LONGITUDINAL SECTION

SCALE: ¼" = 1'-0"

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

SHEET 5 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1)

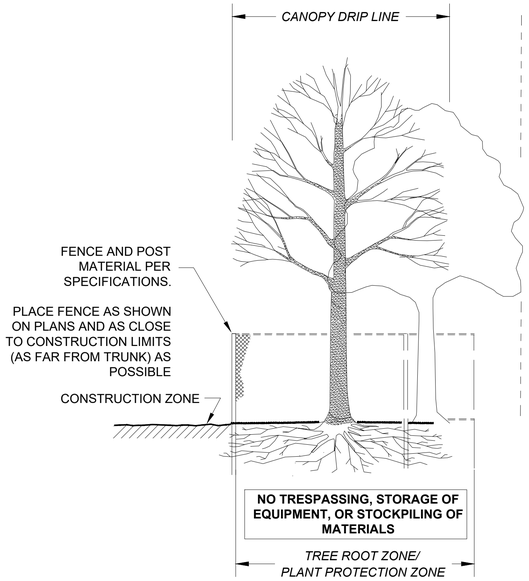
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CONSTRUCTION DETAILS.DWG Plotted on 19-Jan-2026 1:46 PM

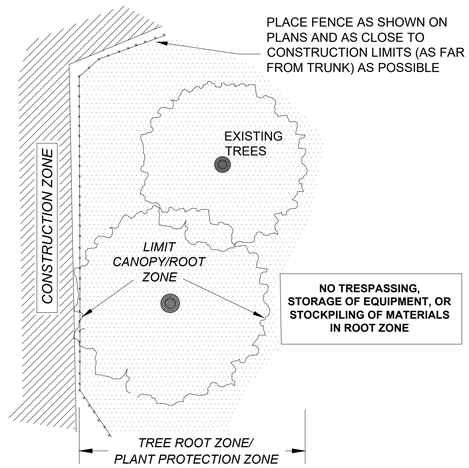
DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	6	7
PROJECT FILE NO.	613636		

CONSTRUCTION DETAILS

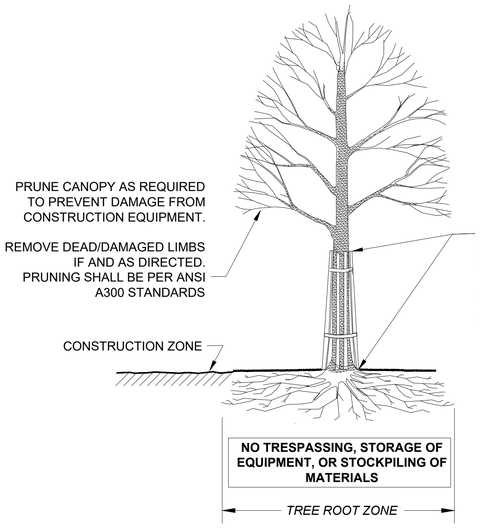


SECTION - FENCE PROTECTION OF ROOT ZONE



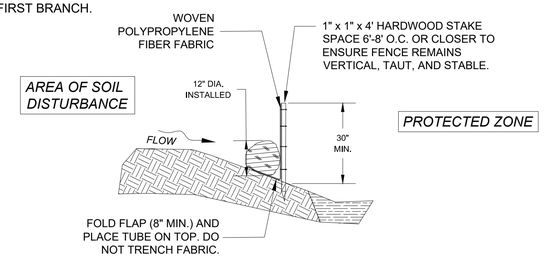
PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - ROOT ZONE
NOT TO SCALE



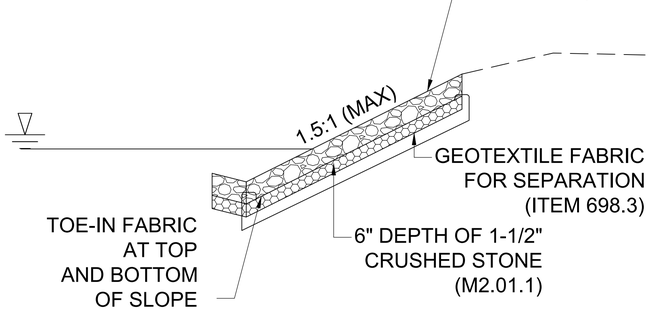
SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - TRUNK
NOT TO SCALE

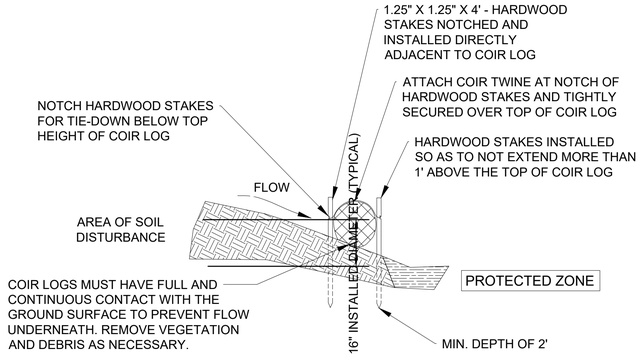


SECTION

COMPOST FILTER TUBE & SILT FENCE
NOT TO SCALE

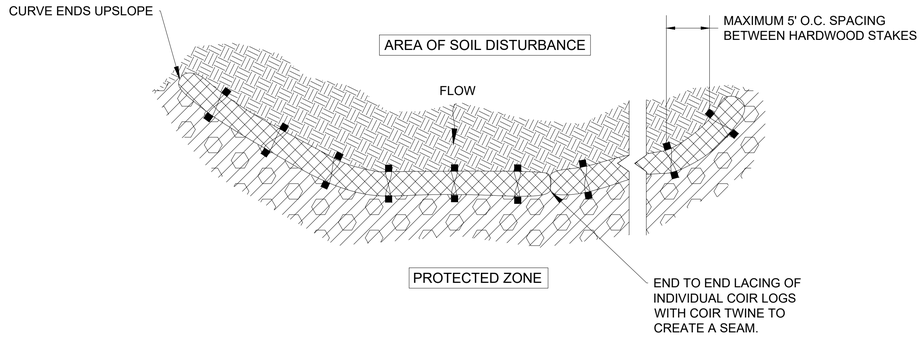


MODIFIED ROCKFILL
NOT TO SCALE



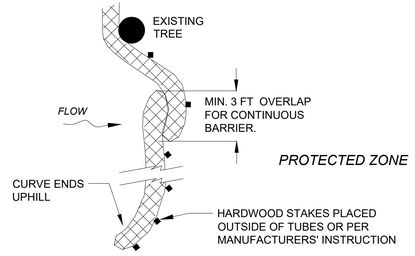
*IF, UPON APPROVAL OF THE ENGINEER, COIR WATTLE IS USED IN PLACE OF COIR LOGS FOR REPAIRS DURING CONSTRUCTION, DIAMETER OF COIR WATTLE MAY BE 12 INCHES.

SECTION



PLAN VIEW

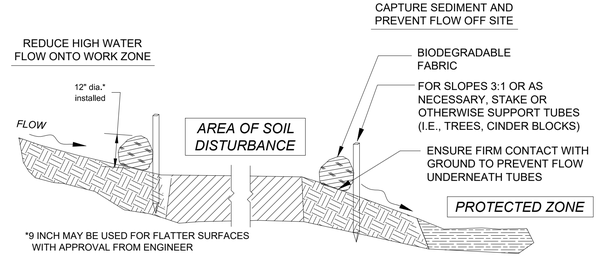
SEDIMENT BARRIER - COIR LOG
NOT TO SCALE



PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLAN VIEW



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE
NOT TO SCALE

NOTES:

1. 100-YEAR FLOODPLAIN BOUNDARIES FROM FEMA FIRM PANELS 25005C0253H AND 25005C021G, DATED JULY 16, 2015 AND JULY 16, 2014, RESPECTIVELY. BASE FLOOD ELEVATION (BFE) ONSITE IS 14 FEET AND THE SITE IS SITUATED ENTIRELY WITHIN THE FLOODZONE.
2. WETLAND RESOURCE AREAS LOCATED ON APRIL 20, 2025 BY BETA GROUP, INC AS SHOWN ON THESE PLANS.

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	7	7
PROJECT FILE NO.	613636		

IMPACTS PLAN

IMPACT LEGEND AND SUMMARY

HATCH	DESCRIPTION	AREA
	TEMPORARY IMPACT TO RIVERFRONT AREA (RA)	2,814± SF
	PERMANENT IMPACT TO RIVERFRONT AREA (RA)	803± SF
	TEMPORARY IMPACT TO ROCKY INTERTIDAL SHORES (RIS) (LAND SUBJECT TO TIDAL ACTION)	92± SF
	PERMANENT IMPACT TO ROCKY INTERTIDAL SHORES (RIS) (LAND SUBJECT TO TIDAL ACTION)	749± SF
	TEMPORARY IMPACT TO LAND UNDER OCEAN (LUO)	453± SF
	PERMANENT IMPACT TO LAND UNDER OCEAN (LUO)	192± SF
	TEMPORARY COASTAL BANK IMPACT	119± LF
	LAND SUBJECT TO COASTAL STORM FLOWAGE (LSCSF)	11,244± SF
	SEDIMENT CONTROL	

PROJECT BEGIN
STA 9+90
N2755657.0610
E759826.2803

PROJECT END
STA 13+41
N2756005.9479
E759864.7370

9+50 N06° 17' 24.48"E 400.000

MUDDY COVE LN
MUDDY COVE BROOK
PLEASANT ST
TRICENTENNIAL PARK
TAUNTON RIVER
1926 TOWN LAYOUT
2026 TOWN LAYOUT-PENDING
CONSTRUCTION BASELINE
RECORD BASELINE
NAD 83
FLOW
EBB

100' BUFFER ZONE
INNER RIPARIAN ZONE
50' NO STRUCTURE ZONE
25' NO DISTURBANCE ZONE
THIS PORTION OF THE SITE IS ENTIRELY LOCATED WITHIN RA

TEMP RIS IMPACT = 26± SF
PERM RIS IMPACT = 95± SF
TEMP COASTAL BANK IMPACT = 26± LF
PERM RA IMPACT = 58± SF
TEMP RA IMPACT = 564± SF
TEMP RA IMPACT = 368± SF
PERM LUO IMPACT = 11± SF
TEMP LUO IMPACT = 29± SF
TEMP LUO IMPACT = 10± SF
PERM LUO IMPACT = 35± SF
TEMP RIS IMPACT = 19± SF
PERM RIS IMPACT = 323± SF
TEMP RA IMPACT = 406± SF
PERM RA IMPACT = 102± SF
TEMP LUO IMPACT = 170± SF
TEMP LUO IMPACT = 205± SF
TEMP COASTAL BANK IMPACT = 61± LF
TEMP RA IMPACT = 1,017± SF
TEMP COASTAL BANK IMPACT = 20± LF
PERM RIS IMPACT = 240± SF
TEMP RIS IMPACT = 25± SF
PERM RA IMPACT = 99± SF
PERM LUO IMPACT = 136± SF
TEMP LUO IMPACT = 29± SF
DREDGING = 98.2± CY
TEMP COASTAL BANK IMPACT = 12± LF
PERM RIS IMPACT = 91± SF
TEMP RIS IMPACT = 22± SF
PERM LUO IMPACT = 10± SF
TEMP LUO IMPACT = 10± SF
TEMP RA IMPACT = 459± SF

D=030.75'19" L=80.50' R=450.00' PT=83.86' PC=403.36' PT=483.86'

0 20 50 100
SCALE: 1" = 20'

613636_ST_MUNIC_(IMPACT PLAN).DWG Plotted on 16-Jan-2026 2:03 PM

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DOCUMENT A00861

MASSACHUSETTS

DEPARTMENT OF ENVIRONMENTAL PROTECTION

ORDER OF CONDITIONS

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WPA Form 5 - Order of Conditions
Dighton SE BYLAW ONLY

A. Property Information

1. **Property ID – Pleasant Street Bridge Town of Dighton/MassDOT**
   Dighton, MA 02715

2. **Property ID - VARIES**
   Town of Dighton

B. Record Documents

- *Notice of Intent, Pleasant Street Bridge Replacement,* dated January 2026, prepared by BETA Group, Inc., prepared for the town of Dighton & MADOT
  - WPA Form 3
  - Abutters Information
  - Project Narrative
  - List of Figures
    a. Site Locus
    b. Environmental Resource Map
    c. Wildlife Habitat Map
    d. FEMA Firmette
  - Photographic Documentation
  - List of Appendices
    a. Wetland Delineation Report
    b. Stormwater Report & Checklist
    c. Project Plan
  - Long Term Pollution Prevention Plan
  - Construction Period Pollution Prevention Plan
  - Illicet Discharge Statement

- *Project Plans, Proposed Bridge Dighton Pleasant Street over Muddy Cove Brook* (7 Sheets) dated January 8, 2026; Prepared by BETA Group, Inc. Signed and Stamped by Todd M. Warzecki P.E. Civil No. 47367.

- *Memo – Response to MassDEP Comments Pleasant Street Bridge Replacement Project Water Quality Certification* dated July 10, 2026. Prepared by BETA Group, Inc.

C. Special Conditions

I. General Conditions

1. A Conservation Commissioner, Agent of the Commission or the Department of Environmental Protection reserves the right to enter and inspect the property at all reasonable times, until a Certificate of Compliance is issued, to evaluate compliance with this Order of Conditions, the Act, Town of Dighton bylaw, 310 CMR 10.00 and

Town of Dighton regulations, and may acquire any information, measurements, photographs, observations, and/or materials, or may require the submittal of any data or information deemed necessary by the Commission for that evaluation. Further, work shall be halted on the site if the Commissioner, Agent or DEP determines that any of the work is not in compliance with this Order of Conditions. Work shall not resume until the Commission is satisfied that the work will comply, and has so notified the applicant in writing. The Resident Engineer should be contacted to schedule site visits.

2. This Order shall apply to any successor in control or successor in interest of the property described in the Notice of Intent and accompanying plans. These obligations shall be expressed in covenants in all deeds to succeeding owners of portions of the property.

3. The form provided at the end of this Order shall be completed and stamped at the appropriate Registry of Deeds, after the expiration of the 10-day appeal period and if no request for appeal has been filed with the Department of Environmental Protection. This form shall be returned to the Commission in accordance with General Condition # [8], and prior to the commencement of work. Any Order not recorded by the applicant before work commences may be recorded by the Commission at the applicant's expense.

4. The term "Applicant" as used in this Order of Conditions shall refer to the owner, any successor in interest or successor in control of the property referenced in the Notice of Intent, supporting documents and this Order of Conditions. The Commission shall be notified in writing within 30 days of all transfers of title of any portion of property that take place prior to issuance of the Certificate of Compliance.

5. With respect to all conditions the Conservation Commission designates the Conservation Administrator, Commission Consultant, or a member as its Agent with full powers to act on its behalf in administering and enforcing this Order.

6. This document shall be included in all construction contracts, subcontracts, and specifications dealing with the work proposed and shall supersede any conflicting contract requirements. The applicant shall assure that all contractors, subcontractor and other personnel performing the permitted work are fully aware of the permit's terms and conditions. Thereafter, the contractor will be held jointly liable for any violation of this Order resulting from failure to comply with its conditions.

7. If any changes are made in the above-described plan(s) which may or will alter an area subject to protection under the Wetlands Protection Act, or the Town of Dighton Bylaw, or any change(s) in activity subject to regulations under G.L. Ch. 131 §40, or the Town of Dighton local regulations, the applicant shall inquire from this Commission in writing, prior to their implementation in the field, whether the change(s) is significant enough to require the filing of a new Notice of Intent. Any errors in the plans, or information submitted by the applicant, shall be considered changes and the above procedures shall be followed.

8. The **50 foot** No Building Buffer Zone setback adjacent to the Delineated Wetlands Boundary shown on the approved plan **will not apply for this project**.

9. The Commission reserves the right to amend this Order of Conditions after a legally advertised public hearing if plans or circumstances are changed or if new conditions or information so warrant.

10. It is the responsibility of the applicant to procure all other applicable federal, state and local permits and approvals associated with this project. These permits may include but are not necessarily limited to the following:
a. Section 404 of the Federal Water Pollution Control Act. of the Army Corps of Engineers.
b. Water Quality Certification (401) by DEP in accordance with the Federal Water Pollution Control under G.L. Ch. 21 §27(5) and 314 CMR 9.00.
c. Disposal Works Construction Permit from the local board of health under G.L. Ch. 111 §31A and 310 CMR 15.00.
d. Sewer Extension Permit from the DEP Division of Water Pollution Control under G.L. Ch. 21A §7 and 314 CMR 7.00. Any board of health permit for septic system design for any portion of the septic system within 100 feet of wetlands shall be submitted to the Commission prior to construction initiation.
e. Design Requirements for Construction in Floodplains under the state building code (780 CMR 744.00).
f. Compliance with the EPA National Pollutant Discharge Elimination System (NPDES) Construction General Permit under the Clean Water Act.

11. Should issuance of additional permits result in a change in the project, the provisions of Condition # 7 apply, regarding the process requirements for plan changes.

12. This project will require dewatering. A dewatering / water control plan shall be submitted to the Conservation Commission prior to the commencement of dewatering activities.

13. No fuel, oil, or other pollutants shall be stored in any resource area or the buffer zone thereto, unless specified in this Order of Conditions.

14. No trash dumpsters will be allowed within 100 feet of areas subject to protection under the Massachusetts Wetlands Protection Act.

15. **Any other work within 100 feet of wetland resource areas will require that a new NOI, RDA, or Request for an Amended OOC be filed following coordination with the Commission and/or their Agent to confirm appropriate submission.**

II. Prior to Construction

1. Prior to the Pre-Construction Meeting and commencement of any activity on this site, the approved erosion control line shall be staked, by survey. The location of erosion controls shall be adjusted, if necessary, during the pre-construction meeting.

2. Prior to the commencement of any activities other than erosion control installation, there shall be one general Pre-construction Meeting between the project supervisor, the contractor responsible for the work, and a representative of the Conservation Commission to ensure that all parties have a copy of the Order of Conditions and that all conditions are clear. The applicant shall assume responsibility for arranging the meeting and shall contact all parties no later than five (5) business days prior to the meeting

5. Immediately after the Pre-Construction Meeting, all erosion controls shall be installed along the approved and staked line. Erosion controls shall be installed with minimal disturbance to vegetation. Where possible, erosion controls should go around trees, shrubs, and other vegetation, on the uphill side.

6. Immediately after additional installation of erosion controls, the Conservation Commission shall be contacted in order to conduct a follow-up inspection to ensure that erosion controls have been properly installed.

7. The applicant shall notify the Conservation Commission in writing of at least 48 hours prior to commencement of activity on the site and shall advise the Commission of the name(s) and telephone number(s) of the person(s) responsible on site for compliance with this Order.

8. A copy of the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) submitted to EPA shall be submitted to the Dighton Conservation Commission for review and approval prior to beginning work.

9. A signed copy of the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan (CP/PP) shall be provided to the Conservation Commission prior to the pre-construction meeting and a copy shall be kept on-site.

10. Prior to construction, the operator or owner shall submit the Site's 24-hour emergency contact information to the Conservation Commission.

11. The contractor shall follow the Erosion & Sediment Control general principles and Erosion & Sediment Control Sequence as **Construction Period Pollution Prevention Plan** during all construction phases

12. A copy of the approved plan set shall remain on-site for the duration of the project.

III. Erosion Control

1. Appropriate erosion control devices shall be in place prior to the beginning of any phases of construction, and shall be maintained during construction in the wetland areas and buffer zone. The erosion control specifications provided in the Notice of

Intent and the erosion control provision in the Order will be the minimum standards for this project; additional measures may be required by the Commission. These will be maintained until the engineer and a member or Agent of the Conservation Commission agree that they are no longer needed, at which time they will be removed, using mutually satisfactory removal procedures.

2. Dewatering activities shall be monitored daily to ensure that sediment-laden water is appropriately settled prior to discharge toward the wetland resource areas. No discharge of water is allowed directly into an area subject to jurisdiction of the Wetlands Protection Act or the Town of Dighton bylaw or ordinance. If emergency dewatering requirements arise, the applicant shall submit a contingency plan to the Commission for approval, which provides for the pumped water to be contained in a settling basin, to reduce turbidity prior to discharge into a resource area.

3. The applicant shall designate an Erosion Control Monitor Construction Period Pollution Preventor to oversee any emergency placement of controls and regular inspection or replacement of erosion and sedimentation control devices. The name and phone number of the monitor must be provided to the Commission in the event that this person has to be contacted, due to an emergency at the site, during any 24-hour period, including weekend. This person shall be given authority to stop construction for erosion control purposes. The erosion control monitor will be required to inspect all such devices and oversee cleaning and the proper disposal of waste products. Cleaning shall include removal of any entrapped silt.

4. An adequate stockpile of erosion control materials shall be on site at all times for emergency or routine replacement and shall include materials to repair or replace silt fences, compost filter tubes or socks, erosion control blankets, stone riprap, filter berms or any other devices planned for use during construction.

5. The Commission reserves the right to impose additional conditions on portions of this project to mitigate any impacts which could result from site erosion, or any noticeable degradation of surface water quality discharging from the site. For example, installation of erosion control measures may be required in areas not shown on the plan(s) referenced in this Order of Conditions. Should such installation be required by the Commission, they shall be installed within 48 hours of the Commission's request.

6. Erosion controls should be inspected every 7 days in accordance with the CP/PP and repaired, reinforced or replaced as necessary.

7. Within thirty days of completion of construction on any given portion of the project, all disturbed areas in the completed portion of the site shall be permanently stabilized with rapidly growing vegetative cover, using sufficient top soil to assure long-term stabilization of disturbed areas. A minimum of four to six inches of organic top soil, if necessary, and a USDA Natural Resource Conservation Service-approved seed mixture should be used in accordance with the measures outlined in "Vegetative Practices in Site Development: Massachusetts Conservation Guide, Volume II", or other

acceptable stabilization method. Continued maintenance of this area, in a manner, which assures permanent stabilization and precludes any soil erosion, shall be the responsibility of the Town of Dighton. This condition will not expire with the issuance of a Certificate of Compliance.

8. Subsequent to seeding, disturbed areas will be covered with a compost blanket, seedless straw mulch, erosion control blanket or netting or other suitable material in order to provide an adequate surface protection until seed germination. Preference should be given to compost blankets.

9. Cement trucks shall not be washed out in any wetland resource or buffer zone area, or into any drainage system. Any deposit of cement or concrete products into a buffer zone or wetland resource area shall be immediately removed.

10. Erosion and sedimentation control devices shall be inspected after each storm event and repaired or replaced as necessary. Any accumulated silt adjacent to the barriers shall be removed.

11. All stockpiles of soils existing for more than one day shall be surrounded by a row of entrenched silt fence, and shall be covered. Silt fence must be removed when the stockpile is cleared. If the contractor places stockpiles in unpaved areas, upon removal of stockpiles, the site shall be de-compacted, repaired with compost blanket, and seeded with appropriate seed mix.

12. All exposed soil finish grade surfaces shall be immediately landscaped and stabilized, or loamed, seeded and mulched with a layer of mulch straw. Where necessary, the loam and seeding shall be held in place with jute netting. Outside of the growing season, exposed soil finish grade surfaces shall be stabilized with a layer of mulch hay until climate conditions allow for seeding. During construction, any area of exposed soils that will be left idle for more than 30 days shall be stabilized with a layer of mulch hay or other means approved by the Conservation Commission. Temporary stabilization methods may include, but not be limited to, compost blankets, hydroseeding, straw mats, jute netting, sod, or other Commission approved method.

13. Erosion control devices shall remain in place and properly functioning until all exposed soils have been stabilized with final vegetative cover and the Conservation Commission and/or its Administrator has authorized their removal.

14. No equipment will operate waterward of the perimeter erosion controls.

15. Grading shall be accomplished so that runoff shall not be directed to the property of others without mitigation as described in the project plans. This project shall not increase runoff, nor cause flood or storm damage, to abutters or the property of others.

16. Placement of loam, or compost blanket and seeding will occur within (30) days of final grading. Barren areas should be stabilized by seeding if work on the project is

interrupted for more than 90 days, unless the 90 days are in the winter. A nurse crop seed mix shall be spread if it's winter. If this condition should occur, the applicant shall request a determination from the Commission as to whether seeding or an alternative measure should be conducted. Seed stock to restore project-denuded areas shall emphasize the natural flora and be of proven value to local wildlife.

17. Disturbed lawn locations will be restored and seeded.

IV. During Construction

1. If unforeseen problems occur during construction which may affect the statutory interests of the Wetlands Protection Act or the Town of Dighton's Bylaw, upon discovery by either the Conservation Commission, its Agent, or the applicant, the Commission shall immediately be notified, and an immediate meeting shall be held between the Commission or its Agent, the applicant, and other concerned parties to determine the correct measures to be employed. The applicant shall then act to correct the problems using the corrective measures agreed upon. Subsequent to resolution, the activity and resulting actions shall be documented in writing.

2. All equipment shall be inspected regularly for leaks. Any leaking hydraulic lines, cylinders or any other components shall be fixed immediately.

3. A copy of this Order of Conditions, construction plans, and copies of the documents and reports shall be on the site upon commencement and during any site work for contractors to view and adhere to.

4. All equipment shall be operated, parked, and maintained so as to limit alterations of wetlands and buffer zone to those areas clearly identified on the plans and demarcated in the field by the flagging and construction barriers installed pursuant to approved plans. No equipment is to enter or cross-wetland resource areas at any time unless the location of disturbance is marked on the plans referenced in this Order and flagged in the field.

5. In case of emergencies, problems, or the need to discuss site conditions with the Conservation Commission, please contact the Commission or its Administrator during business hours at (774) 872-0946.

6. Equipment for fuel storage and refueling operations shall be located in an upland area as far away from the wetland resource areas as possible.

7. There will be no stockpiling of soils within the resource areas. The contractor is responsible for coordinating and securing a staging area and it will be the contractor's responsibility to identify the appropriate location for stockpiling. The Conservation Department is to be notified with a construction plan as to the location of this stockpile area.

8. The Contractor shall be responsible for following the Construction Period Pollution

Prevention Plan.

9. Stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after the construction activities in that portion of the site that have temporarily or permanently ceased.

V. After Construction

1. Upon completion of construction and final soil stabilization, the applicant shall submit the following to the Conservation Commission to request a Certificate of Compliance (COC):

A Completed Request for a Certificate of Compliance form (WPA Form 8A or other form if required by the Conservation Commission at the time of request).
A letter from the Registered Professional Engineer of record certifying compliance of the property with this Order of Conditions, and detailing any deviations that exist, and their potential effect on the project. A statement that the work is in "substantial compliance" with no detailing of the deviations shall not be accepted.
An "As-Built" plan signed and stamped by the Registered Professional Engineer or Land Surveyor of record showing post-construction conditions within all areas under the jurisdiction of the Dighton Conservation Commission Wetlands Protection Bylaw. This plan shall include at a minimum:
(a) All wetland resource area boundaries with associated buffer zones and regulatory setback areas taken from the plan(s) approved in this Order of Conditions;
Locations and elevations of all stormwater management conveyances, structures and best management designs, including foundation drains, constructed under this Order within any wetland resource area or buffer zone;
Distances from any structures constructed under this Order to wetland resource areas - "structures" include, but are not limited to, all buildings, septic system components, wells, utility lines, fences, retaining walls, and roads/driveways;
A line delineating the limit of work - "work" includes any filling, excavating and/or disturbance of soils or vegetation approved under this Order;
Wetland resource replication areas constructed under this Order.

The request shall include an As-Built Plan, and affidavit, from a Professional Land Surveyor or Professional Engineer certifying compliance with the conditions of this Order and the referenced plans and documents. The request shall state ANY AND ALL deviations from this Order and an explanation as to the reason for the deviation.

2. If the completed work differs from that in the original plans and/or conditions listed in this Order, a report must be submitted to the Commission thirty (30) days prior to completion specifying how the work differs, at which time the applicant shall first request a modification to the Order. Upon review and approval by the Commission, the applicant may request in writing a Certificate of Compliance as described above.

3. Pesticides and herbicides shall not be used on any lawn area within the buffer zone except as necessary for herbicide control of invasive species. This condition shall remain in force permanently and shall be recorded as such on the Certificate of Compliance.

4. Fertilizers utilized for landscaping and lawn care in the buffer zone shall be slow release, low-nitrogen types and shall not be used within 25 feet of a wetland resource area. This condition shall remain in force permanently and shall be recorded as such on the Certificate of Compliance.

5. A permit shall expire three years from the date of issuance and may be renewed once for an additional one year provided the renewal request is received in writing by the Commission prior to expiration.

6. This Order of Conditions permit shall expire three (3) years on **4/23/2029** from the date of issuance and may be renewed once for an additional one year provided the renewal request is received in writing by the Commission prior to expiration.

SIGNED: The Dighton Conservation Commission DATE: 4/23/2026

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DOCUMENT A00867

UNITED STATES COAST GUARD

BRIDGE PERMIT EXEMPTION REQUEST

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Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Phillip Eng, Interim MassDOT Secretary
Jonathan L. Gulliver, Undersecretary and Highway Administrator

massDOT
Massachusetts Department of Transportation
Highway Division

January 12, 2026

Joi Singh, Division Administrator
Federal Highway Administration
55 Broadway, 10th Floor
Cambridge, MA 02142
Attn: Ken Coelho, District 5 Area Engineer

RE: Pleasant Street Bridge Replacement (Project #613636)
Pleasant Street over Muddy Cove Brook
Dighton, Massachusetts

Dear Ms. Singh,

The Massachusetts Department of Transportation – Highway Division (MassDOT) respectfully requests a preliminary determination from the Federal Highway Administration (FHWA) on the Pleasant Street Bridge Replacement Project's qualification for a Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA) exception under 23 U.S.C. § 144(c)(2) and 23 CFR § 650.805 to U.S. Coast Guard (USCG) bridge permitting and that the First Coast Guard Northeast District Bridge Office (DBO) also review and provide written concurrence with this determination.

Description of Existing Bridge and Muddy Cove Brook

Bridge D-08-002 (3L9), locally known as the Pleasant Street Bridge, is a single-span structure carrying Pleasant Street over Muddy Cove Brook in eastern Dighton, Massachusetts. The Pleasant Street Bridge was constructed in 1914, reconstructed in 1949, and has exceeded its projected service life.

The existing bridge consists of a combination of reinforced concrete tee beams beneath the original roadway, and concrete encased steel girders beneath the original trolly track on the east side. The substructure consists of reinforced concrete abutments, U-wingwalls to the northwest and southeast, and splayed wingwalls to the northeast and southwest. These are supported on piles of unknown specification and depth. The existing structure has a clear span of approximately 28 feet (square span of 23' -4 ¾"), an out-to-out width of 36'-4 1/2", and a curb-to-curb width of 32'-1/2". Over the bridge, there is a hot mix asphalt wearing surface and concrete railing on both sides. The trolley line on the east side is no longer present and is anticipated to have been buried or removed. The bridge is currently posted for 7-ton, 15-ton, and 22-ton weight limits.

According to the routine MassDOT Structures Inspection Field Report dated 2018 and the Weston & Sampson Alternative Analysis Report dated 2019, the overall condition of the superstructure is fair, and the overall condition of the substructure is satisfactory. Hairline cracks with efflorescence and minor spalls are typically found throughout the deck underside. All encased beams have map cracking with varied amounts of efflorescence and the abutments have locations of minor cracking and delamination. Additionally, the wingwalls typically exhibit cracking and abrasion.

The Pleasant Street Bridge crosses a tidal portion of Muddy Cove Brook approximately 15 feet upstream from its confluence with the Taunton River. The Taunton River is a major tidal river that flows south from

Ten Park Plaza, Suite 4160, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
mass.gov/massdot

southeastern Massachusetts to the Mount Hope Bay. A dam on Muddy Cove Brook is located 0.2 miles upstream of the Bridge creating a barrier for recreation as well as fish migration. The existing bridge structure also has a water depth of 2.6 feet at low tide and clearance of 2.2 feet at high tide, neither of which are accessible for most water craft.

Description of Proposed Bridge

The replacement bridge has been designed in accordance with 2020 AASHTO LRFD Bridge Design Specifications for HL-93 loading. The proposed bridge will have a skewed span of 26 feet (square span of 23' -4 ¾"), an out-to-out width of 40', and hydraulic opening of 244 square feet. The proposed roadway cross section includes two (2) 11-foot travel lanes with a 2-foot shoulder on the east side. The western shoulder will vary from 2 feet to 9 feet to provide an adequate sight distance from Muddy Cove Lane. A 6-foot concrete sidewalk is proposed along the eastern side with granite curbing. The proposed cross section at the bridge will be tapered to meet the existing approach roadway conditions. Modified rockfill will be reestablished along all four quadrants following bridge replacement for slope stabilization.

Stormwater infrastructure within the Project limits is classified as "country drainage" and no changes or improvements are proposed due to the limited ROW, topography, and resources adjacent to the Project.

In water work will consist of reestablishing the existing modified rock fill at all four bridge quadrants, as well as installation of cofferdams along the abutments so the bridge abutments can be removed and replaced in the dry. Impacts to Tidal Waters of the US will include 545 sf of temporary impacts and 941 sf of permanent impacts below the High Tide Line. In addition, 98.2 cubic yards of dredging below the Mean High Water Elevation is proposed to excavate to 1-foot below the bridge footings. No Salt Marsh alteration is proposed, and fencing will be installed at the limit of alteration to protect the Salt Marsh during construction.

The Bridge will require discharge of dredged or fill material to Waters of the U.S.; therefore, a 401 Water Quality Certification from the Massachusetts Department of Environmental Protection (314 CMR 9.00), Coverage under the Section 10 / Section 404 Massachusetts General Permit from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act (33 U.S. Code § 1344) and an Order of Conditions from the Dighton Conservation Commission under the Dighton Wetlands Protection Bylaw will be required to construct the Project.

FHWA Exemption from USCG Permit Requirements and Coordination with the Dighton Harbormaster

The FHWA has the responsibility under 23 U.S.C. § 144 and 23 CFR § 650.805 to determine whether a bridge project receiving federal assistance under Title 23, U.S.C. meets the exemption criteria for USCG Administration purposes. Per 23 U.S.C. § 144 and 23 CFR § 650.805, a USCG permit is not required if FHWA determines that the proposed construction, reconstruction, rehabilitation, or replacement of the federally aided or assisted bridge is over waters that:

a) Are not used or not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce; and

b) Are:

   i. Not tidal; or

   ii. Tidal, only used by recreational boating, fishing and other small vessels less than 21 feet in length.

In May 2025, Ronald Marino, the Dighton Harbor Master, was consulted via phone call to confirm the active use of watercraft along Muddy Cove Brook. The Harbormaster confirmed that due to the low

clearance under the Pleasant Street Bridge, Muddy Cove Brook is only accessible to small watercraft such as kayaks or canoes. While Muddy Cove Brook is accessible to small watercraft under 21 feet in length, actual recreational use by watercraft is rare.

If you have any questions, please feel free to contact Samantha Dolabany, Director of Environmental Services at Samantha.l.dolabany@dot.state.ma.us.

Sincerely,

Samantha Dolabany
Director of Environmental Services

I concur with the recommendation of MassDOT that this project qualifies for a STURAA USCG Bridge Permit Exemption pursuant to 23 U.S.C. § 144(c)(2) and 23 CFR § 650.805.

Ken Coelho,
FHWA Division, District 5 Area Engineer

Attachments: Attachment A – Assessment Response Checklist
Attachment B – Site Locus
Attachment C – List of Army Corps Permitted Structures
Attachment D – Project Plans
Attachment E – Photographic Documentation
Attachment F – Navigability Survey

cc: Greg Frazier, MassDOT Project Manager
Tom Ferry, Town of Dighton
Todd Warzecki, BETA Project Manager

U.S.Department of Transportation
Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

INSTRUCTIONS FOR USE

This form provides the process for FHWA's preliminary determination to make an exception under 23 U.S.C. § 144(c)(2) to Coast Guard bridge permitting authorities. It is recommended that State DOT and/or FHWA division offices complete this form.

Section V of the 2014 USCG-FHWA Memorandum of Agreement (MOA) provides that FHWA makes the preliminary exception determination, followed by Coast Guard review to identify issues or concerns with FHWA's preliminary determination. The preliminary determination shall be made at an early stage of project development (as soon as the information is available to the applicant) so that coordination with the local Coast Guard District Bridge Office (DBO) can be accomplished before or during environmental processing (23 CFR Part 650.805(a)).

If the DBO identifies issues or concerns with the determination of the FHWA Division Office, he/she will identify the area of concern by marking the appropriate answer in the **"DBO Concerns"** areas included in this checklist. The DBO will also include written comments **"DBO Comments"** and supporting documentation with this form and return it to the FHWA Division Office. Any disputes resulting from this exception determination process will be resolved in accordance with the Dispute Resolution Section of the 2014 USCG-FHWA MOA.

When both the DBO and FHWA Division Office agree that a 23 U.S.C. 144(c)(2) exception applies to a project, the DBO will provide written concurrence to the FHWA division office. In addition, the DBO will identify if the proposed bridge will require the establishment, maintenance, and operation of lights and signals as required by 14 U.S.C. § 85 and 33 CFR Part 118 at that time.

The use of 23 U.S.C. § 144(c)(2) exceptions cannot be delegated to state transportation agencies as part of a NEPA assignment agreement.

1. Name of waterway:

   Muddy Cove Brook

2. Has the waterway at the project location determined to be navigable waters of the United States per 33 CFR Part 2.36?

   ☒ Yes ☐ No ☐ Do Not Know

   (If "**No**", then no USCG jurisdiction. If you do not know, contact DBO for confirmation of waterway status.)

3. At proposed site, mileage along waterway measured from mouth or confluence:

   20 feet

4. Waterway is a tributary of Taunton River at mile 9 (if applicable).

U.S.Department of Transportation
Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

Geographical location (city, state, county): Dighton, Massachusetts

5. Lat-Long coordinates (if known, as precise as possible):
   a. Latitude: 41.80959 (N) (Example: 40° 48' 3.49" N)
   b. Longitude: -71.11969 (W) (Example: -73° 47' 16.19" W)
6. Is there an existing bridge at, or near the above location?
   ☒ Yes ☐ No (if **"Yes"** please answer questions 7a-7b)
   a. Does this bridge have a USCG or Army Corps of Engineers permit?
      ☐ Yes ☐ No ☒ Do Not Know
   b. Please provide vertical and horizontal clearances at:
      ☐ Normal Pool ☒ Mean High Water ☐ Ordinary High Water
      Vertical: 2.25 (feet)
      Horizontal: 23.3 (feet) Datum: NAVD88
7. Is the waterway tidal (As defined by the process outlined on pages 7-8)?
   ☒ Yes ☐ No **DBO Concerns** ☐ **Yes** ☐ **No**
   DBO Comments:
8. Is the waterway used by recreational, fishing or other vessels greater than 21 feet in length?
   ☐ Yes ☒ No **DBO Concerns** ☐ **Yes** ☐ **No**
   DBO Comments:
9. Is the waterway used to transport interstate or foreign commerce? (If **Yes**, permit might be required)
   ☐ Yes ☒ No ☐ Do Not Know **DBO Concerns** ☐ **Yes** ☐ **No**
   DBO Comments:
11. Is the waterway susceptible for use in its natural condition or by reasonable improvement as a means to transport interstate or foreign commerce? (If **Yes,** permit might be required)
    ☐ Yes ☒ No **DBO Concerns** ☐ **Yes** ☐ **No**
    DBO Comments:
12. Are there any Army Corps of Engineers permitted structures (piers, docks, dams,

U.S.Department of Transportation
Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

powerlines) on the waterway? [1] (contact USCG and/or Army Corps of Engineers to verify] (if **yes**, please attach document with names + locations (mile #))

☒ Yes ☐ No ☐ Do Not Know **DBO Concerns** ☐ **Yes** ☐ **No**

DBO Comments:

Waterway information at proposed bridge site (if available/applicable)

13. Water depth at high tide (ft):

    8.3 – HAT / HLT

14. Water depth at normal pool (ft):

    5.27

15. Water depth at MLW or MLLW (ft):

    2.25 - MLW

16. Tidal range MHW to MLW or MHHW to MLLW (ft):

    6.05 - MHW to MLW

17. Datum used for depths:

    NAVD88 (NOAA Station 8447386)

[1] This question seeks to determine whether the Army Corps of Engineers has asserted jurisdiction over the waterway or reach thereof by the issuance of a Jurisdictional Determination, or the issuance of permits of any type including those for structures under Section 10 of the Rivers and Harbors Act (33 U.S.C. § 403), or through any other USACE permitting authority including the Clean Water Act § 404.

U.S.Department of Transportation
Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

Additional Documentation

Please include the following information when submitting to the DBO:

☒ Location Map (8 ½" x 11")

☒ Photo of existing bridge (if any) or proposed bridge location taken from the prospective of the waterway

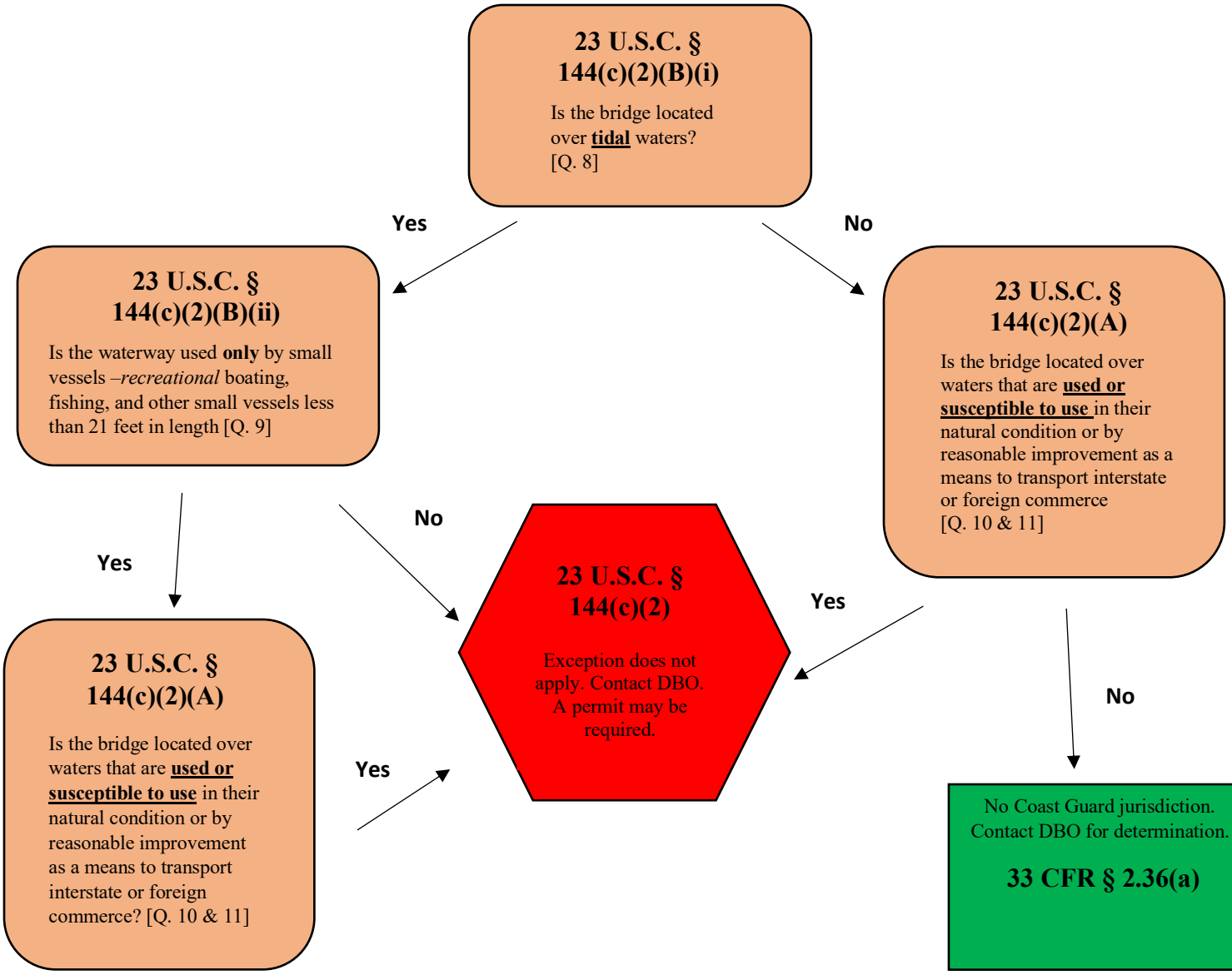
Consultant: Laura Krause

NEXT STEP:

When both the DBO and FHWA Division Office agree that the 144(c)(2) exception applies to a project, the DBO will write a letter to that effect to the FHWA Division Office, attaching the completed checklist. In addition, in that letter the DBO will identify if the proposed bridge will require the establishment, maintenance, and operation of lights and signals as required by 14 U.S.C. § 85 and 33 CFR Part 118.

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Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits



Generally, 23 U.S.C. § 144(c)(2) applies:

- When the waterway is tidal and;
  - Boats using the waterway are less than 21 feet in length; and
  - Waterway is not used or susceptible to use for interstate or foreign commerce
  - Exceptions may be warranted on case-by-case basis

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Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

Navigable waters of the U.S. for Coast Guard Jurisdiction

When Coast Guard navigability determinations are made in accordance with 33 CFR 2.36, they will be maintained at each Coast Guard District office and available for public review. These determinations may be modified or reversed by Congress or a federal court with jurisdiction over the waterway at issue.

33 CFR 2.36(a)

(a) Except as provided in paragraph (b) of this section, *navigable waters of the United States, navigable waters,* and *territorial waters* mean, except where Congress has designated them not to be navigable waters of the United States:

(1) Territorial seas of the United States;

(2) Internal waters of the United States that are subject to tidal influence; and

(3) Internal waters of the United States not subject to tidal influence that:

(i) Are or have been used, or are or have been susceptible for use, by themselves or in connection with other waters, as highways for substantial interstate or foreign commerce, notwithstanding natural or man-made obstructions that require portage, or

(ii) A governmental or non-governmental body, having expertise in waterway improvement, determines to be capable of improvement at a reasonable cost (a favorable balance between cost and need) to provide, by themselves or in connection with other waters, as highways for substantial interstate or foreign commerce.

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Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

Process for Determining "Tidal Waters" for 144(c)(2) Exceptions

1. 23 U.S.C. § 144(c)(2) provides that a Coast Guard bridge permit is not required for projects that are over waters which are:

   a) **Not used and are not susceptible to** use in the natural condition of the bridge or by reasonable improvement as a means to transport interstate or foreign commerce; **and** are
   b) Not tidal; or
   c) If tidal, used by only recreational boating, fishing, and other small vessels that are less than 21 feet in length.

2. If 23 U.S.C. § 144(c)(2)(a) criteria are not met, the exception does not apply. As such, the tidal status of a waterway has no impact on a 23 U.S.C. § 144(c)(2) exception determination.
3. To determine whether a waterway is "tidal" for the purposes of the above statute, the coast Guard District Bridge Office with jurisdiction over the project will accept any of the below sources of information as sufficient to establish the tidal status of the reach of waterway in question. These determinations may be done as part of a 23 U.S.C. § 144(c)(2)(b) or (c) determination in consultation and concurrence with the applicant and Federal Highway Administration Office:
   a. Data from a NOAA Tidal Datum/Buoy, U.S. Army Corps of Engineers Tide Gauge, or other Federally-maintained data collection system showing such data that quantitatively evinces tidal influence in the project area as defined in 33 CFR § 2.34, or,
   b. A report from an official "state hydrologist" or other analogous official employed by the state government wherein the project lies, or,
   c. Physically-observable and recordable visual evidence of a "high tide line" including, but limited to:
      i. A line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying in a hurricane or other intense storm. (33 CFR § 328.3)

U.S.Department of Transportation
Federal Highway Administration

Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

4. Any disputes resulting from or related to the above determination process shall be resolved per the Dispute Resolution section of the 2014 USCG-FHWA Memorandum of Agreement



Figure 1
Site Locus
Pleasant Street Bridge
Dighton, MA

N
W E
S

0 1,000 2,000 Feet

1 inch = 1,000 feet

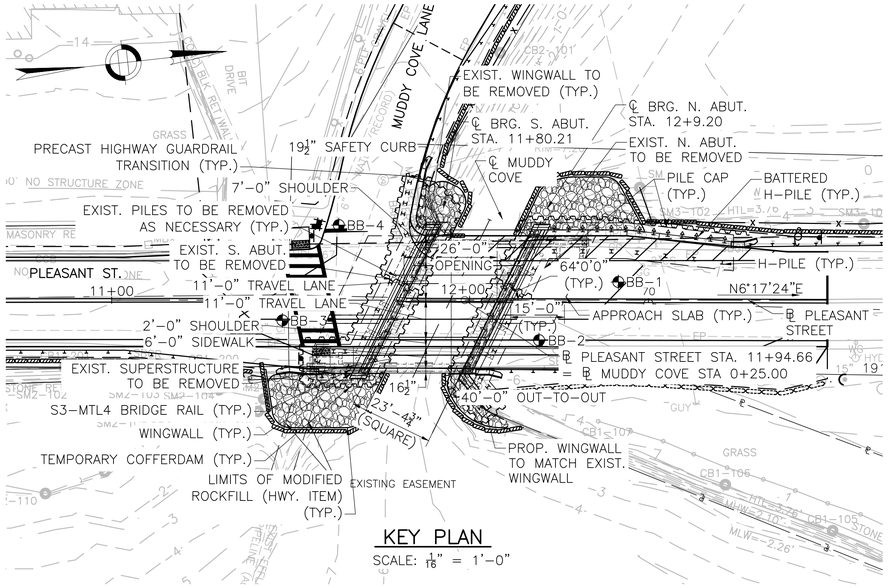
BETA
IMPROVING COMMUNITIES TOGETHER

Data Source: MassGIS USGS Color Ortho Imagery (2009)

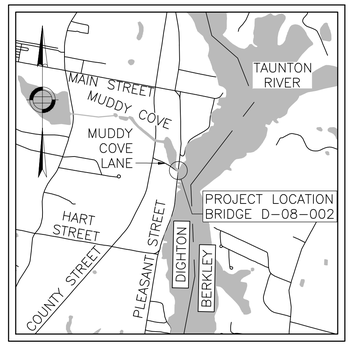
List of Army Corps of Engineers Permitted Structures

Muddy Cove Brook

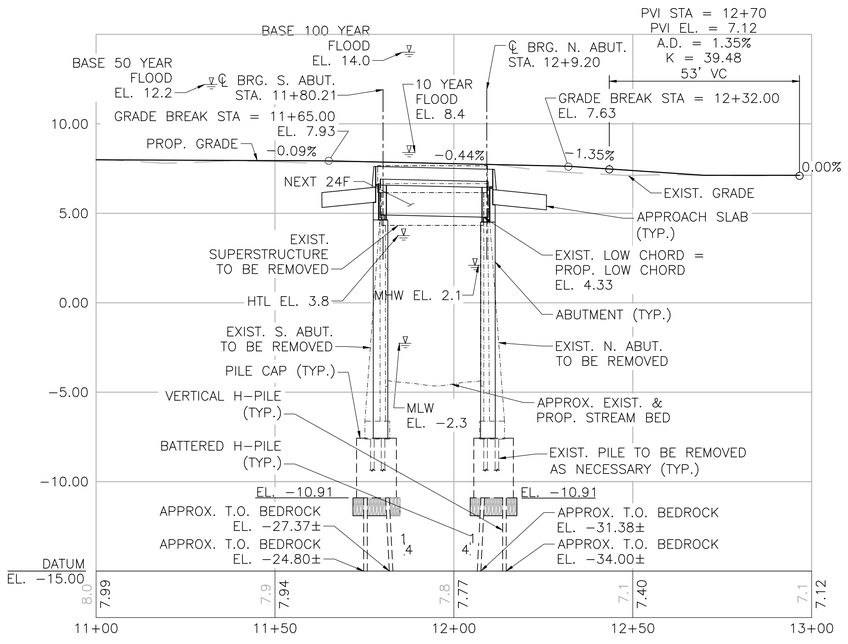
1. Muddy Cove Pond Dam (Fed ID: MA00793) – 0.6 Miles from the Project Site at Muddy Cove Pond.



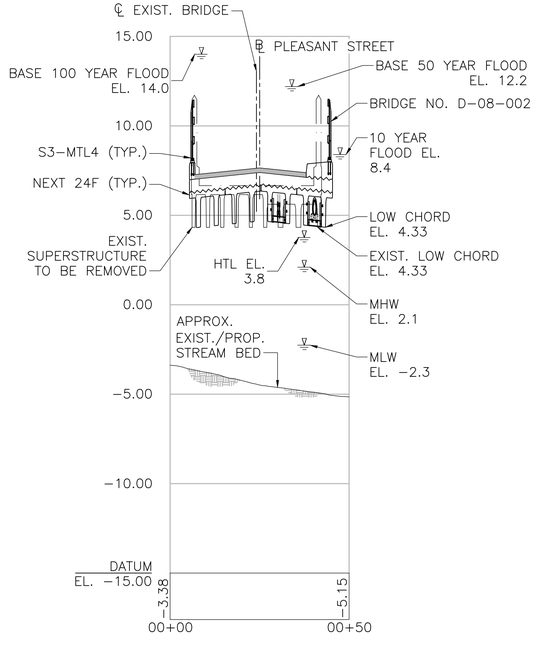
KEY PLAN
SCALE: 1/16" = 1'-0"



LOCUS
SCALE: 1" = 2000'



PLEASANT STREET PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"



MUDDY COVE PROFILE
HORIZONTAL SCALE 1/16" = 1'-0"
VERTICAL SCALE 5/16" = 1'-0"

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	1	7
PROJECT FILE NO.	613636		

TITLE SHEET

SHEET INDEX

1 TITLE SHEET
2 CONSTRUCTION PLAN
3 GENERAL PLAN & ELEVATION
4 WINGWALL ELEVATIONS
5 DEMOLITION
6 CONSTRUCTION DETAILS
7 IMPACTS PLAN

BETA GROUP, INC.
701 GEORGE WASHINGTON HIGHWAY,
LINCOLN, RI 02865

########## | ISSUED FOR CONSTRUCTION

MassDOT Massachusetts Department of Transportation Highway Division

PROPOSED BRIDGE
DIGHTON
PLEASANT STREET
OVER MUDDY COVE BROOK

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

STATE BRIDGE ENGINEER | CHIEF ENGINEER

SHEET 1 OF 7 SHEETS BRIDGE NO. D-08-002 (CV1)

TITLE PAGE_RECOVER.DWG Plotted on 9-Dec-2025 11:04 AM

First Structural Submittal (S1) 24-October-2025

HIGHWAY GUARD DETAILS

TRANSITION TO NCHRP 350 GUARDRAIL STA 21+01 (MEET EXIST) TO 20+67 RT (MUDDY COVE LN)
TRANSITION TO BRIDGE RAIL STA 20+67 TO 20+33 LT
BRIDGE S3-TL4 GUARDRAIL STA 20+33 TO 12+77 LT
(MUDDY COVE LN AFTER 20+33 AND PLEASANT STREET AFTER 12+73)
TRANSITION TO BRIDGE RAIL STA 12+73 TO 13+07 LT
TRANSITION TO NCHRP 350 GUARDRAIL STA 13+07 TO 13+41 LT (MEET EXIST)

TANGENT END TREATMENT - TL-3 STA 10+00 TO 10+25 RT
GUARDRAIL - TL-3 (SINGLE FACED, DEEP POSTS) STA 10+25 TO 11+17 RT
TRANSITION TO BRIDGE RAIL STA 11+17 TO 11+51RT
BRIDGE S3-TL4 GUARDRAIL STA 11+51 TO 12+05 RT
TRANSITION TO BRIDGE RAIL STA 12+05 TO 12+39 RT
TRAILING ANCHORAGE STA 12+39 TO 12+49 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE UTILITY PLAN

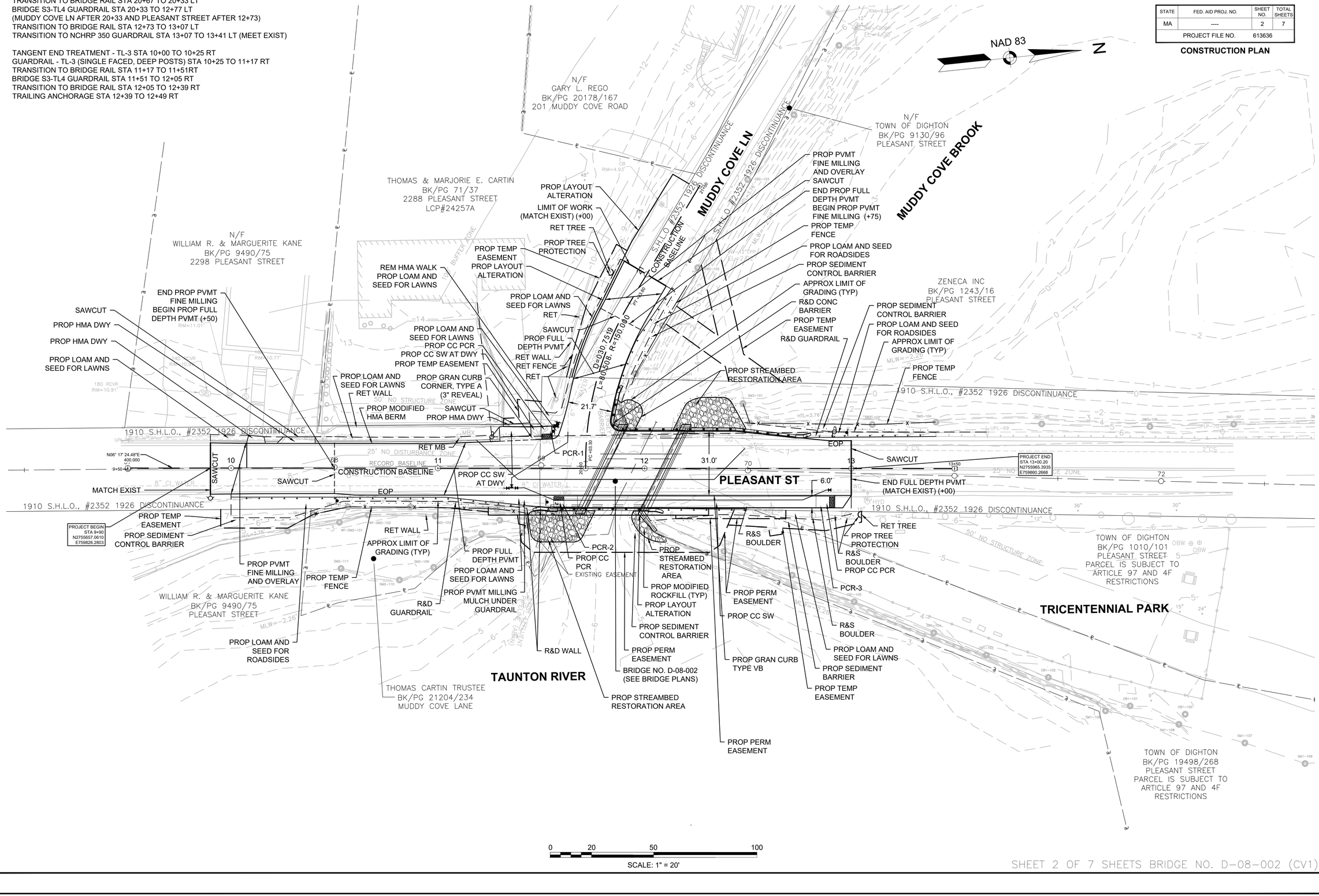
DRAINAGE DETAILS

NONE

DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	2	7
PROJECT FILE NO.	613636		

CONSTRUCTION PLAN

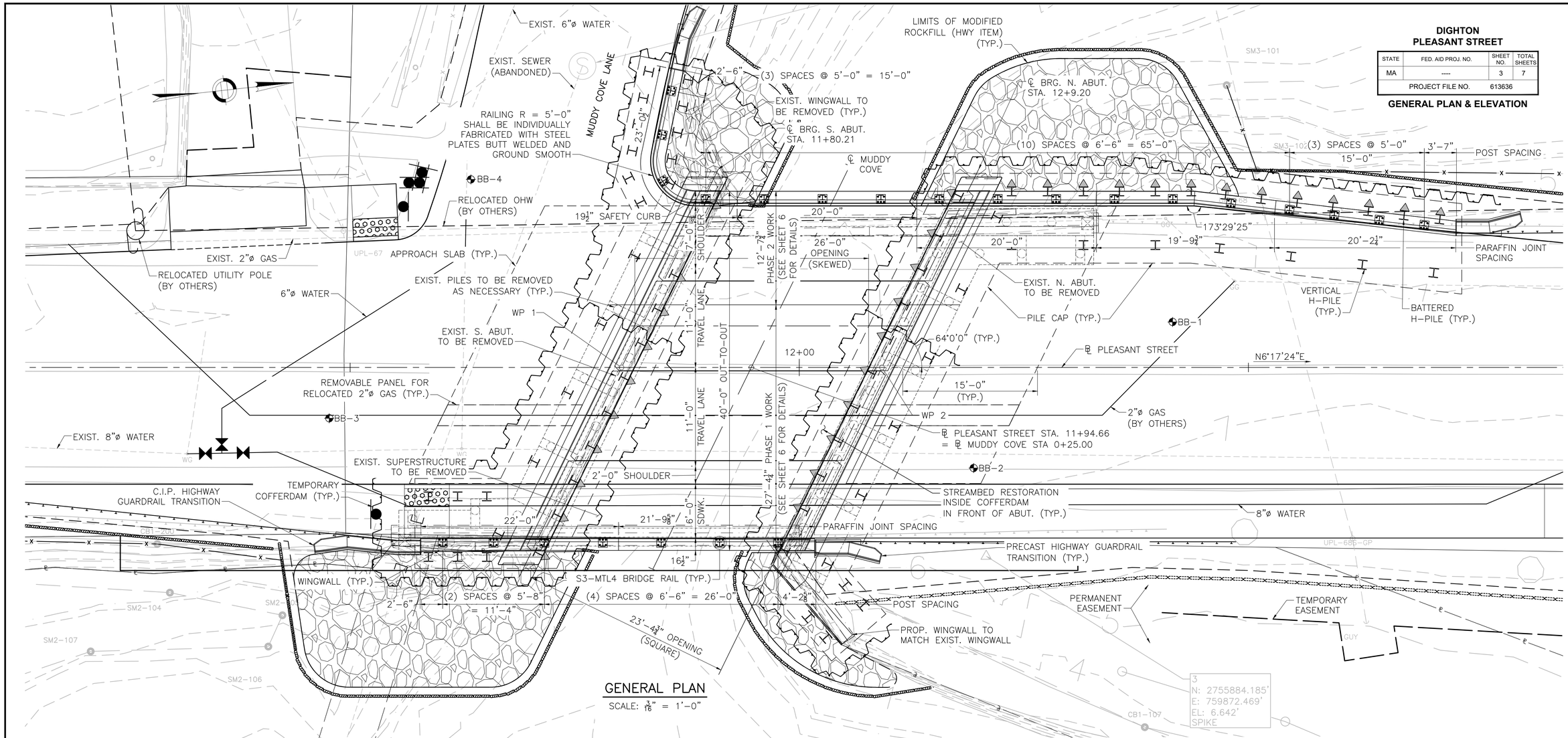


CONSTRUCTION PLAN.DWG Plotted on 11-Dec-2025 1:09 PM

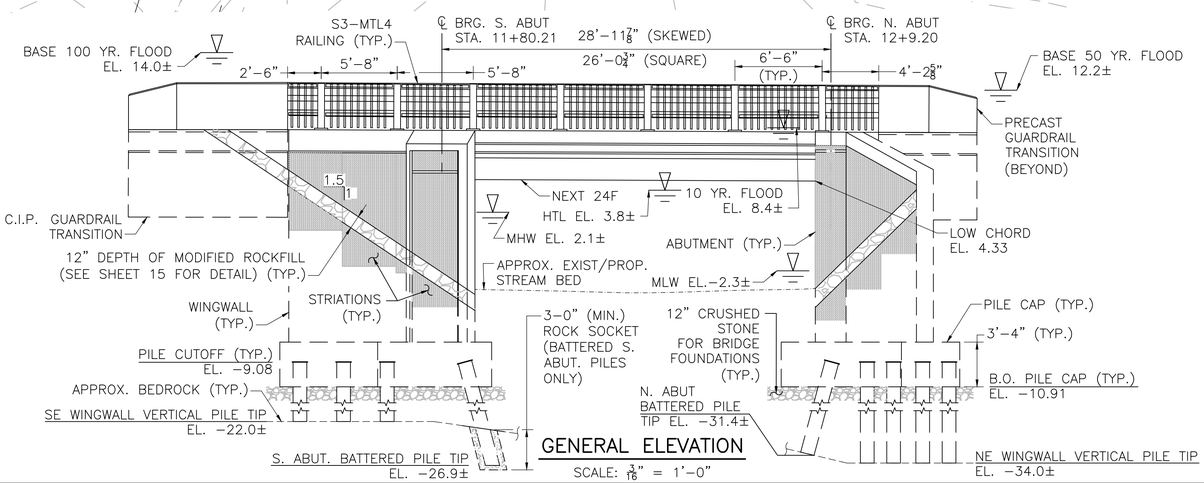
DIGHTON
PLEASANT STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	3	7
PROJECT FILE NO.		613636	

GENERAL PLAN & ELEVATION



GENERAL PLAN
SCALE: 3/16" = 1'-0"



GENERAL ELEVATION
SCALE: 3/16" = 1'-0"

########## #	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

GEN PLAN AND ELEVATION.DWG Plotted on 9-Dec-2025 11:25 AM

Photo 1



View of the western side of the Pleasant Street Bridge—facing northeast

Photo 2



View of the eastern side of the Pleasant Street Bridge—facing south

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23, 2022

Photo 3



View of Muddy Cove Brook upstream of the bridge—facing northwest

Photo 4



View of Muddy Cove Brook downstream of the bridge, where it meets the Taunton River—facing north-east

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented February 23 and June 14, 2022

Photo 5



View of Pleasant Street Bridge span centerline—facing northwest

Photo 6



View of the Pleasant Street Bridge at High Tide—facing southwest

PHOTOGRAPHIC DOCUMENTATION

Pleasant Street Bridge

Dighton, Massachusetts

Photographs Documented June 14, 2022

The Commonwealth of Massachusetts

Massachusetts Department of Transportation

NAVIGABILITY SURVEY
For

Muddy Cove Brook

Directions: This form must be completed and signed by the local harbormaster where a proposed project involves the reconstruction or replacement of an existing bridge over a US Coast Guard navigable waterway.

1. From your personal observations, please describe the current extent of recreational and/or commercial boating use of this waterbody, particularly upstream of the above bridge.

   Current use includes occasional use by kayaks and canoes, however the low clearance of the bridge restricts larger vessels from accessing upstream.

2. Are there any moorings, boat ramps, marinas, etc., located up river of the bridge? Please describe.

   There are no moorings, boat ramps or marinas located upstream of the bridge.

3. Do boats 21 feet in length or greater navigate under the bridge?

   No, there is insufficient clearance under the bridge to allow a vessel of this size to navigate under the bridge.

4. Are the banks of the river at the bridge currently or potentially used for launching vessels or for putting in canoes or kayaks? Please explain.

   Banks may potentially be used to launch vessels at high tide, however they are steep and irregular at other times making access difficult.

5. Are there any historical records of vessels using the river for recreational and /or commercial purposes? If so, please explain the extent of the use.

   There are no available historical records of Muddy Cove Brook being used for recreation or commercial purposes.

6. If information is available, please provide the elevations of mean low, mean high and spring high tides where the bridge crosses the river.

   Spring High Tide: 3.76 ft

   Mean Low Tide: -2.26 ft

   Mean High Tide: 2.10 ft

   NAVD88
   NOAA Station 8447386

7. Please provide information as to whether there are any active shellfish resources in the immediate area of the bridge?

   MassGIS data has identified the area adjacent to the bridge, within the Taunton River, as suitable habitat for American Oyster and Soft Shelled Clam; however, it is also designated as prohibited for shellfish harvesting.

Signature: _____ Date: 12/17/2025

DOCUMENT A00868

UNITED STATES COAST GUARD

BRIDGE PERMIT EXEMPTION DETERMINATION

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U.S. Department of Homeland Security
United States Coast Guard

Commander
Coast Guard Northeast District

One South Street
Battery Park Building
New York, NY 10004-1466
Staff Symbol: (dpb)
Phone: (703) 728-0092
Email: Christina.D.Sullivan2@uscg.mil

16211
January 30, 2026

Federal Highway Administartion-Massachusetts Division
Attn: Justin Slack, P.E.
220 Binney Street, 9th Floor
Cambridge, MA 02142

Dear Mr. Slack:

This letter is in response to your letter, dated January 12, 2026, invoking 23 U.S.C Section 144(c)(2) for the Pleasant Street Bridge project over Muddy Cove Brook in Dighton, MA. Based upon the information you have provided, we concur that the proposed action is exempt from Coast Guard bridge permit jurisdiction.

Although this project will not require a bridge permit other areas of Coast Guard jurisdiction may apply. The following stipulations must be met:

a. The requirement to display permanent navigation lights at this bridge in accordance with 33 C.F.R 118 is waived. This waiver may be rescinded at any time in the future should the Cost Guard determine that increased nighttime navigation warrants lighting.

b. The work plan and schedule must be forwarded to the Coast Guard for review at least 30 days prior to commencement so that coordination with local stakeholders may be conducted.

c. Any spillage of oil, or oil-based products during the project, must be promptly reported to the Coast Guard by calling the National Response Center at 1-800-424-8802, or Coast Guard Sector Southeastern New England at 1-866-819-9128.

Please do not hesitate to contact Bridge Management Specialist, Christina Sullivan, at 703-728-0092 if you have any questions.

Sincerely,

HITCHEN.GREGORY.P.1010980611

Digitally signed by HITCHEN.GREGORY.P.1010980611
Date: 2026.01.30 14:22:29 -05'00'

G. P. Hitchen
Bridge Program Manager
U.S. Coast Guard
By direction

Copy: Coast Guard Sector Southeastern New England, Waterways Department
Dighton Harbormaster

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DOCUMENT A00875

POLICY DIRECTIVE P-22-001
AND
POLICY DIRECTIVE P-22-002

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massDOT Massachusetts Department of Transportation Highway Division

Number: P-22-001
Date: 9/23/22

POLICY DIRECTIVE

Jonathan Gulliver (signature on original)
HIGHWAY ADMINISTRATOR

Off-Site Stockpiling of Soil from MassDOT Construction Projects

Purpose

The purpose of this Policy Directive is to formally establish a policy and procedures for managing and stockpiling soil generated and transported from MassDOT construction projects. This Policy Directive does not supersede any Federal, State, or Local regulations.

Date of Effect

This Policy Directive is effective immediately for all projects, including active construction projects.

For active construction projects and for other projects advertised prior to October 15, 2022, changes to the contract documents needed to implement the requirements of this Policy Directive will be considered on a case-by-case basis and shall be approved by the District Highway Director, as necessary.

For projects advertised on or after October 15, 2022, MassDOT will include the requirements and implementation procedures of this Policy Directive in the construction contract documents.

Policy Requirements

This policy is intended to prevent the off-site relocation of excavated soil generated from MassDOT projects to areas near residential receptors and to control potential fugitive dusts and/or contaminants. To that end, excavated soil may not be moved from the project site without knowledge of the content of the material. Knowledge may include visual field observations for presence of staining, odor, and/or debris, screening with a photoionization detector (PID), laboratory analysis, and/or site history. Pavement millings and other non-soil materials are not subject to the requirements of this Policy Directive.

Moving soil from a MassDOT project site to a temporary off-site storage location must be approved in writing by the District Highway Director.

The Contractor must select a storage location that is at least 500 feet away from residential receptors, as defined herein to include, but not be limited to, residential dwellings, residentially

zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities.

Temporary off-site storage of excavated soil from a MassDOT project is only permissible at a location approved and permitted by MassDOT. The temporary storage location should be located within the same municipality where the soil was excavated, where possible. Stockpiled soil must be securely covered, and appropriate measures must be taken to minimize fugitive dust and erosion.

Signs indicating the source of the soil, the date the soil was generated, and contact information must be erected and maintained until the stockpiled soils are transported to a disposal facility or reused on the project site.

Implementation Procedures

To ensure that off-site storage of excavated soils is managed properly on MassDOT projects, this policy requires the following:

1. **Off-Site Stockpile Storage Locations**
    a. The Contractor shall provide proposed off-site storage locations to the Engineer for approval at least 30 days prior to transporting soil off site. Off-site storage locations should be in the same municipality as the work site.
    b. The Contractor shall keep excavated soil on site until adequately characterized to the satisfaction of the Engineer.
    c. The Contractor shall provide notification of the approved off-site storage location to the local Board of Health and the Town Manager's/Mayor's Office at least 7-days prior to transporting soil off site.
    d. The Contractor shall provide the Engineer with at least 3-days' notice prior to transporting soil off site.
    e. For off-site storage locations on MassDOT property, the Contractor is required to obtain an Access Permit through the District Permits Office prior to storage of soil or other materials. MassDOT will issue these permits at no cost to the Contractor. Information to be submitted by the Contractor as part of the permit application shall include:
        i. A description of material to be stored off-site, including available analytical data;
        ii. A figure of the location with distances to residences and residential receptors; and
        iii. Anticipated duration of temporary storage.
    f. Stockpile locations should not be within 500 feet of residential receptors (e.g., residential dwellings, residentially zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities).
        i. If the stockpile location must be within 500 feet of residential receptors, then soil must be less than RCS-1 (per 310 CMR 40.1600) and free of potentially hazardous or regulated items.

g. For off-site storage locations on non-MassDOT property, the Contractor must notify the property owner(s) at least 7 days prior to transporting material.
h. Exceptions to these rules will be reviewed by MassDOT and may be approved by the District Highway Director on a case-by-case basis.

2. Off-Site Stockpile Management

a. The Contractor shall keep soil stockpiles on impermeable surfaces (e.g., asphalt or concrete) or on 10-mil polyethylene sheeting.
b. The Contractor shall cover soil stockpiles with 10-mil polyethylene sheeting and surround with a berm made of hay bales, straw wattles, or similar.
    i. Piles that are actively being worked on must be covered and re-secured at the end of the work shift.
c. The Contractor shall label stockpiles with signs, including:
    i. Location of origin (including any Release Tracking Numbers)
    ii. Stockpile ID number (including MassDOT District office-assigned tracking ID, if different)
    iii. Date of initial accumulation
    iv. Applicable telephone numbers for the Contractor and MassDOT.
d. The Contractor shall mitigate fugitive dust at storage locations under the direction of an appropriately trained/certified environmental professional.
e. The Contractor shall remedy noncompliance with this policy within 48 hours.
f. The Contractor shall remedy noncompliance with this policy on the SAME DAY for potentially hazardous material, as determined by the Engineer.
g. The Contractor shall handle excavated soil according to federal, state, and local regulations.
h. The Contractor shall use appropriate shipping documents for all movements of excavated soil on public roadways (e.g., Bill of Lading, Material Shipping Record, Manifest, Asbestos Waste Shipment Record, etc.).

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massDOT Massachusetts Department of Transportation Highway Division

Number: P-22-002
Date: 9/23/22

POLICY DIRECTIVE

Jonathan Gulliver (signature on original)
HIGHWAY ADMINISTRATOR

Use of MassDOT Property for Staging and other Construction-Related Operations

Purpose

This Policy Directive is intended to address the use of MassDOT property by MassDOT Contractors for construction staging and other construction-related operations that are not specifically defined in the construction contract. Such use of MassDOT property will only be allowed if permitted by the District Office in accordance with 700 CMR 13.00, Approval of Access to MassDOT Highways and Other Property. This includes the use of MassDOT property for staging, laydown, and storage of equipment and materials, including soil excavated from a project site.

This Policy Directive requires the Contractor/applicant to obtain a Non-Vehicular Access Permit from MassDOT to use MassDOT property for these purposes.

This Policy Directive is effective immediately and applies to all MassDOT construction projects.

General Permit Considerations and Conditions

In addition to other normal MassDOT Access Permit procedures, MassDOT shall consider the following during the application, review, implementation and monitoring processes of Access Permits required by this Policy Directive:

- Storage and placement of the Contractor's equipment and materials should not be allowed within the clear zone of the roadway.
- Stockpiled soils should not be located within 500 feet of residential receptors, as defined herein to include, but not be limited to, residential dwellings, residentially zoned property, schools, daycare facilities, playgrounds, parks, recreational areas, hospitals, elderly housing and convalescent facilities.
- The Contractor/applicant shall identify the access/egress locations of the proposed storage areas. MassDOT will only approve locations determined to be safe for roadway users, construction workers and the general public.
- The Contractor may be required to submit a Traffic Management Plan and/or Lighting Plan for MassDOT review and approval as part of the permit application, depending on the proposed use of the area.

- The Contractor shall submit the permit application through MassDOT's online State Highway Access Permit System (SHAPS).
- MassDOT will waive the permit application fee for any application received from a MassDOT Contractor for any permit required by this Policy Directive and will waive any subsequent amendment and extension fees that may otherwise be required.
- MassDOT will review the permit application in accordance with applicable standard procedures and will apply standard permit terms and conditions, as necessary.
- The Resident Engineer will verify that the permit is approved before allowing the Contractor to use the affected area for the requested purpose.
- Areas permitted are for use by the approved applicant only and are not to be shared with or used by other vendors. Subcontractors specifically engaged with the applicant working on the specific MassDOT project will be allowed to use the area in accordance with the terms of the permit.
- Permits are issued on an annual basis and will require the Contractor to file for an extension each year to continue use.

Exemptions from Permit Requirements

Equipment and materials being used for active construction operations and located within the work zone of the construction contract are exempt from this permit requirement, provided they do not interfere with the safety or operation of the roadway or the work zone. Examples of these types of exempt uses are:

- Equipment and materials parked or stored within a protected (barriered) work zone.
- Materials placed in the work zone prior to same-day installation or use.
- Soils excavated temporarily and scheduled to be replaced, such as for trenching operations or for installation of drainage structures.

DOCUMENT B00420

PROPOSAL

DIGHTON

For: **Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove**

COMMONWEALTH OF MASSACHUSETTS

LOCATION

The work referred to herein is in the Town of DIGHTON in Bristol County, in the Commonwealth of Massachusetts, and is shown by the locus map (Document 00331) in the Proposal Pamphlet, the work locations extend as follows:

Pleasant Street - Bridge No. D-08-002 (3L9)

Beginning – Station 9+90.00 +/-
Ending – Station 13+41.00 +/-

Muddy Cove Lane

Beginning – Station 20+00.00
Ending – Station 21+31.00 +/-

The contract prices shall include the furnishing of all materials (except as otherwise herein specified), the performing of all the labor requisite or proper, the providing of all necessary machinery, tools, apparatus and other means of construction, the doing of all the abovementioned work in the manner set forth, described and shown in the specifications and on the drawings for the work, and in the form of contract, and the completion thereof within **941 CALENDAR DAYS** upon receipt of a Notice to Proceed, except that if the completion date falls between December 1 and March 15 then the same number of days beyond December 1st will be extended after March 15th.

The Work of this project is described by the following Items and quantities.

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Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
102.2	1	TREE TRIMMING AT _____ LUMP SUM		
102.3	32	HERBICIDE TREATMENT OF INVASIVE PLANTS AT _____ PER HOUR		
102.33	32	INVASIVE PLANT MANAGEMENT STRATEGY AT _____ PER HOUR		
102.511	2	TREE PROTECTION - ARMORING AND PRUNING AT _____ EACH		
102.513	60	AIR EXCAVATION AND ROOT PRUNING AT _____ PER FOOT		
102.521	30	TREE AND PLANT PROTECTION FENCE AT _____ PER FOOT		
102.55	40	ARBORIST AT _____ PER HOUR		
115.1	1	DEMOLITION OF BRIDGE NO. D-08-002 AT _____ LUMP SUM		
120.1	550	UNCLASSIFIED EXCAVATION AT _____ PER CUBIC YARD		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
140.	860	BRIDGE EXCAVATION AT _____ PER CUBIC YARD		
140.1	500	BRIDGE EXCAVATION WITHIN COFFERDAM AT _____ PER CUBIC YARD		
141.1	25	TEST PIT FOR EXPLORATION AT _____ PER CUBIC YARD		
151.	250	GRAVEL BORROW AT _____ PER CUBIC YARD		
151.2	615	GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES AT _____ PER CUBIC YARD		
151.9	1	STREAMBED RESTORATION AT _____ LUMP SUM		
156.	110	CRUSHED STONE AT _____ PER TON		
156.1	130	CRUSHED STONE FOR BRIDGE FOUNDATIONS AT _____ PER TON		
170.	1,030	FINE GRADING AND COMPACTING - SUBGRADE AREA AT _____ PER SQUARE YARD		

Project # 613636	Contract # 136482			
Location : DIGHTON				
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ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
180.01	1	ENVIRONMENTAL HEALTH AND SAFETY PROGRAM AT _____ LUMP SUM		
180.02	50	PERSONAL PROTECTION LEVEL C UPGRADE AT _____ PER HOUR		
180.03	20	LICENSED SITE PROFESSIONAL SERVICES AT _____ PER HOUR		
181.11	2,070	DISPOSAL OF UNREGULATED SOIL AT _____ PER TON		
181.12	260	DISPOSAL OF REGULATED SOIL - IN-STATE FACILITY AT _____ PER TON		
181.13	260	DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY AT _____ PER TON		
181.14	10	DISPOSAL OF HAZARDOUS WASTE AT _____ PER TON		
182.1	1	INSPECTION AND TESTING FOR ASBESTOS AT _____ LUMP SUM		
182.2	65	REMOVAL OF ASBESTOS AT _____ PER FOOT		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
183.1	88,000	TREATMENT OF CONTAMINATED GROUNDWATER AT _____ PER GALLON		
183.2	220	DISPOSAL OF GRANULAR ACTIVATED CARBON AT _____ PER POUND		
220.7	1	SANITARY STRUCTURE ADJUSTED AT _____ EACH		
227.4	10	MASONRY PLUG AT _____ PER SQUARE FOOT		
303.06	5	6 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) AT _____ PER FOOT		
303.08	200	8 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) AT _____ PER FOOT		
309.	325	DUCTILE IRON FITTINGS FOR WATER PIPE AT _____ PER POUND		
347.1	10	1 INCH COPPER TUBING TYPE K AT _____ PER FOOT		
349.08	3	8 INCH GATE VALVE AT _____ EACH		

Project # 613636	Contract # 136482			
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ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
357.06	1	6 INCH GATE BOX AT _____ EACH		
357.08	2	8 INCH GATE BOX AT _____ EACH		
358.	2	GATE BOX ADJUSTED AT _____ EACH		
363.1	2	1 INCH CORPORATION COCK AT _____ EACH		
370.1	1	8 X 6 INCH TAPPING SLEEVE, VALVE AND BOX AT _____ EACH		
376.2	1	HYDRANT - REMOVED AND RESET AT _____ EACH		
384.	2	CURB STOP AT _____ EACH		
402.1	160	DENSE GRADED CRUSHED STONE FOR SUB-BASE AT _____ PER TON		
415.2	230	PAVEMENT FINE MILLING AT _____ PER SQUARE YARD		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
440.	1,550	CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL AT _____ PER POUND		
443.	3	WATER FOR ROADWAY DUST CONTROL AT _____ PER 1000 GALLONS		
450.231	90	SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC - 12.5 - P) AT _____ PER TON		
450.31	110	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC -12.5) AT _____ PER TON		
450.42	150	SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5) AT _____ PER TON		
450.601	10	SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B - 9.5 - P) AT _____ PER TON		
450.701	10	SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 POLYMER (SPC-B - 9.5 - P) AT _____ PER TON		
451.	10	HMA FOR PATCHING AT _____ PER TON		
452.	160	ASPHALT EMULSION FOR TACK COAT AT _____ PER GALLON		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
453.	900	HMA JOINT ADHESIVE AT _____ PER FOOT		
470.99	5	HOT MIX ASPHALT BERM - MODIFIED AT _____ PER TON		
472.	10	TEMPORARY ASPHALT PATCHING AT _____ PER TON		
504.2	1	GRANITE CURB TYPE VA4 - SPLAYED END AT _____ EACH		
506.	140	GRANITE CURB TYPE VB - STRAIGHT AT _____ PER FOOT		
509.	20	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - STRAIGHT AT _____ PER FOOT		
627.1	1	TRAILING ANCHORAGE AT _____ EACH		
627.83	1	GUARDRAIL TANGENT END TREATMENT, TL-3 AT _____ EACH		
628.21	2	TRANSITION TO NCHRP 350 GUARDRAIL AT _____ EACH		

Project # 613636	Contract # 136482			
Location : DIGHTON				
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ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
628.24	4	TRANSITION TO BRIDGE RAIL AT _____ EACH		
628.314	1	TEMPORARY IMPACT ATTENUATOR, REDIRECTIVE, TL-2 AT _____ EACH		
630.2	290	HIGHWAY GUARD REMOVED AND DISCARDED AT _____ PER FOOT		
632.11	30	GUARDRAIL, DEEP POST - STEEL AT _____ EACH		
657.	290	TEMPORARY FENCE AT _____ PER FOOT		
693.	4	BOULDER REMOVED AND STACKED AT _____ EACH		
698.3	120	GEOTEXTILE FABRIC FOR SEPARATION AT _____ PER SQUARE YARD		
701.	80	CEMENT CONCRETE SIDEWALK AT _____ PER SQUARE YARD		
701.1	20	CEMENT CONCRETE SIDEWALK AT DRIVEWAYS AT _____ PER SQUARE YARD		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
701.2	25	CEMENT CONCRETE PEDESTRIAN CURB RAMP AT _____ PER SQUARE YARD		
702.	3	HOT MIX ASPHALT SIDEWALK OR DRIVEWAY AT _____ PER TON		
722.1	1	SCHEDULE OF OPERATIONS (TYPE A) - FIXED PRICE $39,000 AT Thirty Nine Thousand Dollars LUMP SUM	$39,000.00	$39,000.00
740.	30	ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) AT _____ PER MONTH		
748.	1	MOBILIZATION AT _____ LUMP SUM		
751.	30	LOAM FOR ROADSIDES AT _____ PER CUBIC YARD		
751.1	15	LOAM FOR LAWNS AT _____ PER CUBIC YARD		
756.1	1	CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL PLAN AT _____ LUMP SUM		
765.	270	SEEDING AT _____ PER SQUARE YARD		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
767.121	100	SEDIMENT CONTROL BARRIER AT _____ PER FOOT		
767.122	470	SEDIMENT BARRIER - COIR LOG AT _____ PER FOOT		
769.	430	PAVEMENT MILLING MULCH UNDER GUARD RAIL AT _____ PER FOOT		
832.	40	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A) AT _____ PER SQUARE FOOT		
847.1	3	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL AT _____ EACH		
848.1	1	SIGN SUP (N/GUIDE)+RTE MKR W/2 BRKWAY POST ASSEMBLIES-STEEL AT _____ EACH		
850.41	25	ROADWAY FLAGGER AT _____ PER HOUR		
852.	450	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT _____ PER SQUARE FOOT		
853.1	14	PORTABLE BREAKAWAY BARRICADE TYPE III AT _____ EACH		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
853.2	140	TEMPORARY BARRIER (TL-2) AT _____ PER FOOT		
853.21	140	TEMPORARY BARRIER REMOVED AND RESET AT _____ PER FOOT		
854.016	700	TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED) AT _____ PER FOOT		
854.036	50	TEMPORARY PAVING MARKINGS - 6 INCH (TAPE) AT _____ PER FOOT		
856.060	60	ARROW BOARD (TYPE B) AT _____ PER DAY		
856.12	60	PORTABLE CHANGEABLE MESSAGE SIGN AT _____ PER DAY		
859.	300	REFLECTORIZED DRUM AT _____ PER DAY		
866.106	600	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		
866.112	255	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
867.106	550	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) AT _____ PER FOOT		
874.	4	STREET NAME SIGN AT _____ EACH		
903.	1	3000 PSI, 1.5 INCH, 470 CEMENT CONCRETE AT _____ PER CUBIC YARD		
942.124	1,600	STEEL PILE HP 12 X 84 AT _____ PER FOOT		
945.200	33	ROCK SOCKET EXCAVATION 2.0 FOOT DIAMETER AT _____ PER FOOT		
948.41	3	DYNAMIC LOAD TEST BY CONTRACTOR AT _____ EACH		
948.5	74	PILE SHOES AT _____ EACH		
986.	60	MODIFIED ROCKFILL AT _____ PER TON		
990.1	1	COFFERDAM STRUCTURE NO. D-08-002 AT _____ LUMP SUM		

Project # 613636	Contract # 136482			
Location : DIGHTON				
Description : Bridge Replacement, D-08-002 (3L9), Pleasant Street over Muddy Cove				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
991.1	1	CONTROL OF WATER - STRUCTURE NO. D-08-002 AT _____ LUMP SUM		
994.01	1	TEMPORARY PROTECTIVE SHIELDING BRIDGE NO. D-08-002 AT _____ LUMP SUM		
995.01	1	BRIDGE STRUCTURE, BRIDGE NO. D-08-002 AT _____ LUMP SUM		
Total Qty:	106,736			

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