DSK/RM

COMMONWEALTH OF MASSACHUSETTS



CONTRACT DOCUMENTS AND SPECIAL PROVISIONS

PROPOSAL NO.	609255-130934
P.V. =	$4,451,000.00
PLANS	YES

FOR

Federal Aid Project No. CMQ/STP-0035(063)X
Multimodal Accommodation on School Street,
from Spring Street to West Street

in the Town of

MANSFIELD

In accordance with the STANDARD SPECIFICATIONS
for HIGHWAYS and BRIDGES dated 2025

This Proposal to be opened and read: **TUESDAY, JULY 29, 2025 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, JULY 29, 2025 at 2:00 P.M. **

MANSFIELD

Federal Aid Project No. CMQ/STP-0035(063)X
Multimodal Accommodation on School Street, from Spring Street to West Street

****Date Subject to Change**

PROJECT VALUE = $4,451,000.00

Bidders must be pre-qualified by the Department in the HIGHWAY - 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 $635.00 per ton, Portland cement $425.53 per ton, diesel fuel $2.569 per gallon, and gasoline $2.450 per gallon, and Steel Base Price Index 340.6. 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: Monica G. Tibbits-Nutt, Secretary and CEO, MassDOT
Jonathan L. Gulliver, Administrator, MassDOT Highway Division
SATURDAY, JUNE 28, 2025

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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.

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

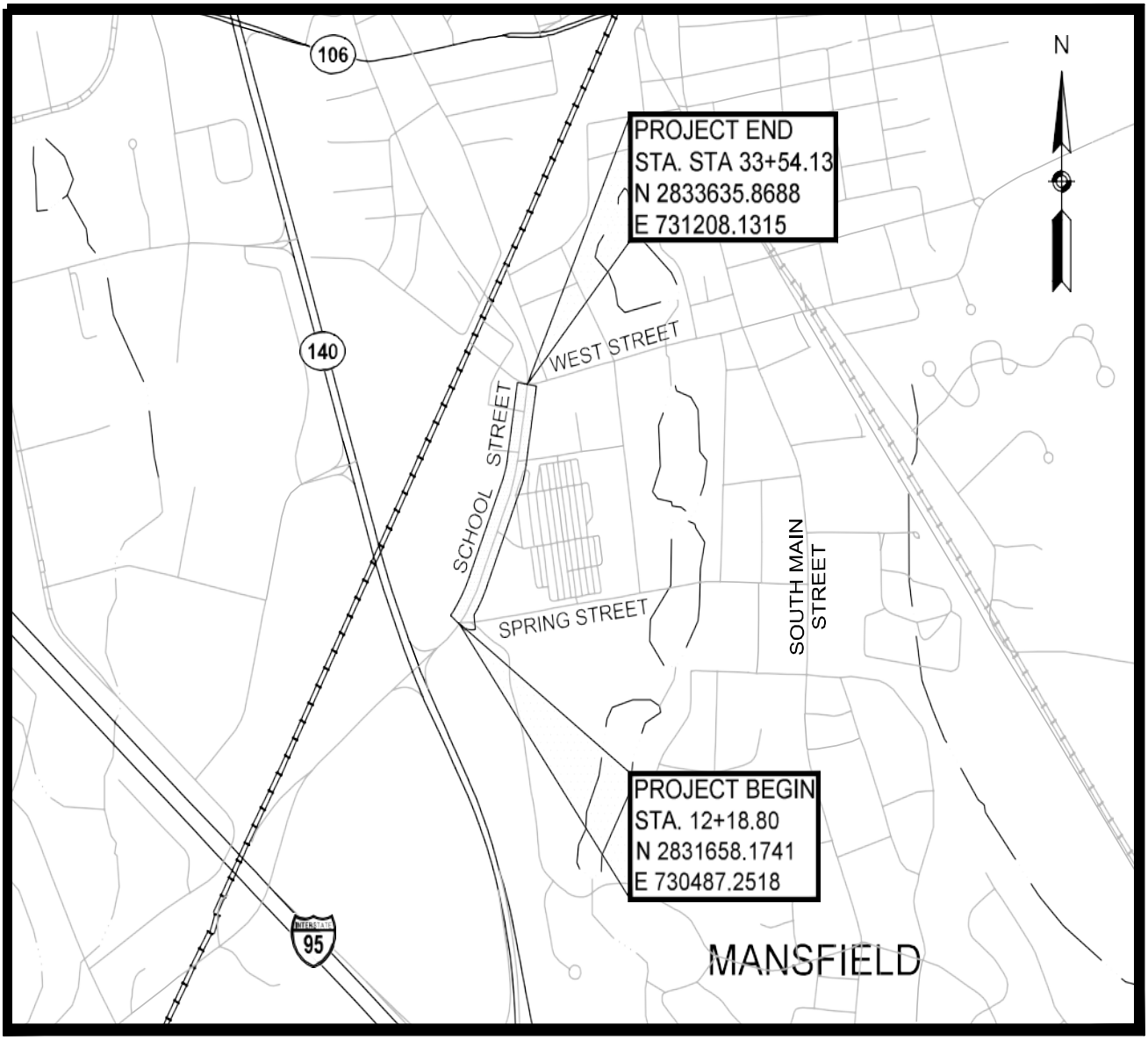
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DOCUMENT 00331

LOCUS MAP

MANSFIELD
Federal Aid Project No. CMQ/STP-0035(063)X
Multimodal Accommodation on School Street, from Spring Street to West Street



NOT TO SCALE

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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

*** END OF DOCUMENT ***

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: _____

WORK NOT COMPLETED WITHIN SPECIFIED TIME: _____

Revised: 04/28/17

*** END OF DOCUMENT ***

DOCUMENT 00710
GENERAL CONTRACT PROVISIONS
Revised: 04-16-25

NOTICE OF AVAILABILITY

The STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 2025, 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

MARCH 31, 2025

The 2025 *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 2.00: PROPOSAL REQUIREMENTS AND CONDITIONS

Subsection 2.09: Rejection of Proposals
Replace bullet (i) in the third paragraph with the following:

(i.) award of the contract would result in the Bidder exceeding the Aggregate Bonding Capacity or the Single Bonding Capacity established by its Surety Company, or the Bidder's Proposal exceeds its Single Contract Limit, or the Bidder was not prequalified in the specified class of work on or before the time of bid opening; or

SECTION 7.00: LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Subsection 7.05: Insurance Requirements
Change the title of paragraph A to Workers' Compensation Insurance

Subsection 7.22: Labor, Lodging, Board, Maximum Hours of Employment, Weekly Payment, Keeping of Payroll Records.
In the second paragraph replace the word "workman" to "worker" and the word "workmen" to "workers".

Replace the third paragraph with the following:

Attention of Bidders is called to MGL Chapter 149, Section 148 requiring the weekly payment of employee wages.

SECTION 9.00: MEASUREMENT AND PAYMENT

Subsection 9.03: Payment for Extra Work
Replace paragraph B., first paragraph, numbers (2) and (3) with the following.

(2) Plus 13 percent of direct labor, for the estimated costs of Federal Insurance Contribution Act (FICA) including Medicare; Federal Unemployment Tax Act (FUTA); State Unemployment Tax Act (SUTA), which includes Unemployment Insurance, the Workforce Training Fund Program,-Employer Medical Assistance Contribution, and COVID-19 Recovery Assessment; Earned Sick Time (EST) Law (940 CMR 33.00); and Paid Family and Medical Leave (PFML) Act (458 CMR 2.00);

or, as an alternative to the above 13 percent, the Contractor may elect to use actual rates for FICA, FUTA, SUTA, EST and PFML provided the actual rates are supported with verifiable documentation and shall be subject to review by MassDOT Audit Operations.

(3) Plus the estimated cost of Workers' Compensation and Liability Insurance, Health, Welfare and Pension benefits, and such additional fringe benefits which the Contractor is required to pay as a result of Union Labor Agreements and/or is required by authorized governmental agencies;

In paragraph B., second paragraph, number (3), replace the word "Workmen's" with "Workers'" .

DIVISION III

MATERIALS SPECIFICATIONS

SECTION M2: AGGREGATES AND RELATED MATERIALS

Subsection M2.01.0 Crushed Stone
Replace the fourth paragraph and the associated asterisk notes with the following;

The crushed stone shall have a maximum 45% wear as determined by the Los Angeles Abrasion Test (AASHTO T 96)

SECTION M7: PAINTS, PROTECTIVE COATINGS AND PAVEMENT MARKINGS

Subsection M7.01.04 Fast Drying White and Yellow Waterborne Traffic Paint
Replace the subsection with the following;

Approved waterborne traffic paint shall be tested in accordance with AASHTO M 348, Code of Federal Regulations: 40 CFR 261.24, for heavy metal content and be listed on the QCML. The markings shall be installed using reflective glass beads meeting the requirements of M7.01.07. For waterborne yellow paint use Organic Yellow No. 65 or No. 75 pigment.

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END OF SUPPLEMENTAL SPECIFICATIONS

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DOCUMENT 00719

(Revised September 14, 2023 – for all Federally Aided Projects)

SPECIAL PROVISIONS FOR PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES

(IMPLEMENTING TITLE 49 OF THE CODE OF FEDERAL REGULATIONS, PART 26)

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POLICY

The Massachusetts Department of Transportation (MassDOT) receives Federal financial assistance from the Federal Highway Administration (FHWA), United States Department of Transportation (U.S. DOT), and as a condition of receiving this assistance, has signed an assurance that it will comply with 49 CFR Part 26 (Participation By Disadvantaged Business Enterprises In Department Of Transportation Financial Assistance Programs). The U.S. DOT Disadvantaged Business Enterprise Program is authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users ("SAFETEA-LU"), as amended, at Title 23, United States Code, § 1101.

Accordingly, MassDOT has established a Disadvantaged Business Enterprise (DBE) Program in accordance with 49 CFR Part 26. It is the policy of MassDOT to ensure that DBEs have an equal opportunity to receive and participate in U.S. DOT assisted Contracts, without regard to race, color, national origin, or sex. To this end, MassDOT shall not directly, or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the program objectives stated below:

- To ensure nondiscrimination in the award and administration of U.S. DOT assisted Contracts;
- To create a level playing field on which DBEs can compete fairly for U.S. DOT assisted Contracts;
- To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
- To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
- To help remove barriers to the participation of DBEs in U.S. DOT assisted Contracts; and
- To assist the development of firms that can compete successfully in the market place outside the DBE Program.

The Director of Civil Rights of MassDOT has been designated as the DBE Liaison Officer. The DBE Liaison Officer is responsible for implementing all aspects of the DBE Program. Other MassDOT employees are responsible for assisting the Office of Civil Rights in carrying out this obligation. Implementation of the DBE Program is accorded the same priority as compliance with all other legal obligations incurred by MassDOT in its financial assistance agreements with each operating administration of the U.S. DOT. Information on the Federal requirements and MassDOT's policies and information can be found at:

Type of Info	***Website***	***Description***
MassDOT Highway Division Policies and Info	https://www.mass.gov/disadvantaged-business-enterprise-goals-2019-2022	*MassDOT–Highway Div'n Page*
For copies of the Code of Federal Regulations	http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR	FDsys – US Gov't Printing Office
For information about the U.S.DOT DBE Program	https://www.transportation.gov/civil-rights/disadvantaged-business-enterprise	U.S. DOT/ FHWA page

1. DEFINITIONS

As used in these provisions, the terms set out below are defined as follows:

"Broker", for purposes of these provisions, shall mean a DBE Entity that has entered into a legally binding relationship to provide goods or services delivered or performed by a third party. A broker may be a DBE Entity that arranges or expedites transactions but performs no work or installation services.

"Contractor", "General" or "Prime" Contractor, "Bidder," and "DB Entity" shall mean a person, firm, or other entity that has contracted directly with MassDOT to provide contracted work or services.

"Contract" shall mean the Contract for work between the Contractor and MassDOT.

"DBB" or "Design-Bid-Build" shall mean the traditional design, bid and project delivery method consisting of separate contracts between awarding authority and a designer resulting in a fully designed project; and a separate bidding process and Contract with a construction Contractor or Bidder.

"DB" or "Design-Build" shall mean an accelerated design, bid and project delivery method consisting of a single contract between the awarding authority and a DB Entity, consisting of design and construction companies that will bring a project to full design and construction.

"Disadvantaged Business Enterprise" or "DBE" shall mean a for-profit, small business concern:

(a) that is at least fifty-one (51%) percent owned by one or more individuals who are both socially and economically disadvantaged, or, in the case of any corporation, in which at least fifty-one (51%) percent of the stock is owned by one or more such individuals; and

(b) where the management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

"FHWA" shall mean the Federal Highway Administration," an agency within U.S. DOT that supports State and local governments in the design, and maintenance of the Nation's highway system (Federal Aid Highway Program).

"Good faith efforts" shall mean efforts to achieve a DBE participation goal or other requirement of these Special Provisions that, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement. Such efforts must be deemed acceptable by MassDOT.

"Joint Venture" shall mean an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the Contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

"Approved Joint Venture" shall mean a joint venture, as defined above, which has been approved by MassDOT's Prequalification Office and Office of Civil Rights for DBE participation on a particular Contract.

"Manufacturer" shall mean a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles or equipment required under the contract and of the general character described by the specifications.

"Regular Dealer" shall mean a DBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which materials, supplies, articles or equipment of the general character described by the specifications and required under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

(a) To be a regular dealer, the firm must be an established, regular business that engages, as its principal business, and under its own name, in the purchase and sale of the products in question.

(b) A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as provided above if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by long term lease agreement and not on an ad hoc or contract by contract basis.

(c) Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this definition.

"Responsive" and "Responsible" refers to the bidder's submittal meeting all of the requirements of the advertised request for proposal. The term responsible refers to the ability of the Contractor to perform the work. This ability can be determined prior to bid invitations.

"Small Business or Small Business Concern" shall mean a small business concern or company as defined in Section 3 of the Small Business Act and SBA regulations implementing it (13 CFR Part 121); and is a business that does not exceed the cap on annual average gross receipts established by the U.S. Secretary of Transportation pursuant to 49 CFR Part 26.65; see also 49 CFR Part 26.39.

"SDO" shall mean the Massachusetts Supplier Diversity Office, formerly known as the State Office of Minority and Women Business Assistance (SOMWBA). In 2010, SOMWBA was abolished and the SDO was established. *See* St. 2010, c. 56. The SDO has assumed all the functions of SOWMBA. SDO is an agency within the Commonwealth of Massachusetts Executive office of Administration and Finance (ANF) Operational Services Division (OSD). The SDO mandate is to help promote the development of business enterprises and non-profit organizations owned and operated by minorities and women.

"Socially and economically disadvantaged individuals" shall mean individuals who are citizens of the United States (or lawfully admitted permanent residents) and who are:

(a) Individuals found by SDO to be socially and economically disadvantaged individuals on a case by case basis.

(b) Individuals in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:

(1) "Black Americans" which includes persons having origin in any of the Black racial groups of Africa; (2) "Hispanic Americans" which include persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race; (3) "Native Americans" which include persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians; (4) "Asian Pacific Americans" which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong; (5) "Subcontinent Asian Americans" which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka; (6) Women; or (7) Any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration (SBA), at such time as the SBA designation becomes effective.

Other terms and definitions applicable to the U.S. DOT DBE Program may be found at 49 CFR Part 26 and related appendices and guidance pages.

2. DBE PARTICIPATION

a. Goal

On this Contract, MassDOT has established the following goal(s) for participation by firms owned and controlled by socially and economically disadvantaged persons. At least half of the goal must be met in the form of DBE Subcontractor construction activity as opposed to material supplies or other services. The applicable goal remains in effect throughout the life of the contract regardless of whether pre-identified DBE Subcontractors remain on the Project or under Contract.

☒ Design-Bid-Build Projects: DBE Participation Goal **7 %**
(*One half of this goal shall be met in the form of Subcontractor construction activity*)

☐ Design-Build Projects: DBE Design Participation Goal ____**%** and DBE Construction Participation Goal **%**
(One half of the Construction Goal shall be met in the form of Subcontractor construction activity)

b. Bidders List

Pursuant to the provisions of 49 CFR Part 26.11(c), Recipients such as MassDOT, must collect from all Bidders who seek work on Federally assisted Contracts the firm full company name(s), addresses and telephone numbers of all firms that have submitted bids or quotes to the Bidders in connection with this Project. All bidders should refer to the Special Provision Document "A00801" of the Project proposal for this requirement.

In addition, MassDOT must provide to U.S. DOT, information concerning contractors firm status as a DBE or non-DBE, the age of the firm, and the annual gross receipts of the firm within a series of brackets (e.g., less than $500,000; $500,000–$1 million; $1–2 million; $2–5 million, etc.). The status, firm age, and annual gross receipt information will be sought by MassDOT regularly prior to setting its DBE participation goal for submission to U.S. DOT. MassDOT will survey each individual firm for this information directly.

Failure to comply with a written request for this information within fifteen (15) business days may result in the suspension of bidding privileges or other such sanctions, as provided for in Section 9 of this provision, until the information is received.

3. CONTRACTOR ASSURANCES

No Contractor or any Subcontractor shall 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 in all respects and as applicable prior to, or subsequent to, award of U.S. DOT assisted Contracts. The Contractor agrees to affirmatively seek out and consider DBE firms as Contractors, Subcontractors, and/or suppliers of materials and services for this Contract. No Contract will be approved until MassDOT has reviewed Bidders'/Contractors' affirmative actions concerning DBEs. Failure to carry out these requirements is a material breach of this Contract which may result in the termination of the Contract or such other remedy as MassDOT or FHWA deem appropriate.

4. REQUIRED SUBCONTRACT PROVISIONS

The Prime Contractor shall include the provisions of Section 3 above in every subcontract, making those provisions binding on each Subcontractor; in addition, the Prime Contractor shall include a copy of this Special Provision, in its entirety, in every subcontract with a DBE firm which is, or may be, submitted for credit toward the Contract participation goal.

5. ELIGIBILITY OF DBES

Only firms that have been certified by SDO and confirmed by MassDOT as eligible in accordance with 49 CFR Part 26 to participate as DBEs on federally aided MassDOT Contracts may be used on this Contract for credit toward the DBE participation goal.

a. Massachusetts DBE Directory

MassDOT makes available to all bidders the most current Massachusetts Disadvantaged Business Enterprise Directory. This directory is made available for Contractors' convenience and is informational only. The Directory lists those firms that have been certified as eligible in accordance with the criteria of 49 CFR Part 26 to participate as DBEs on federally aided MassDOT contracts. The Directory also lists the kinds of work each firm is certified to perform but does not constitute an endorsement of the quality of performance of any business and does not represent MassDOT Subcontractor approval.

Contractors are encouraged to make use of the DBE Directory maintained by SDO on the Internet. This listing is updated daily and may be accessed at the SDO's website at:
https://www.diversitycertification.mass.gov/BusinessDirectory/BusinessDirectorySearch.aspx

b. DBE Certification

A firm must apply to SDO, currently acting as certification agent for MassDOT, for DBE certification to participate on federally aided MassDOT Contracts. A DBE application may be made in conjunction with a firm's application to SDO for certification to participate in state-funded minority and women business enterprise programs or may be for DBE certification only. An applicant for DBE certification must identify the area(s) of work it seeks to perform on U.S. DOT funded projects.

c. Joint Venture Approval

To obtain recognition as an approved DBE Joint Venture, the parties to the joint venture must provide to MassDOT's Office of Civil Rights and Prequalification Office, at least fourteen (14) business days before the bid opening date, an Affidavit of DBE/Non-DBE Joint Venture in the form attached hereto, and including, but not limited to the following:

1. a copy of the Joint Venture Agreement;
2. a description of the distinct, clearly defined portion of the contract work that the DBE will perform with its own forces; and,
3. all such additional information as may be requested by MassDOT for the purpose of determining whether the joint venture is eligible.

6. COUNTING DBE PARTICIPATION TOWARDS DBE PARTICIPATION GOALS

In order for DBE participation to count toward the Contract participation goal, the DBE(s) must have served a commercially useful function in the performance of the Contract and must have been paid in full for acceptable performance.

a. Commercially Useful Function

(1) In general, a DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. With respect to materials and supplies used on the Contract, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the material, installing (where applicable) and paying for the material itself.

(2) To determine whether a DBE is performing a commercially useful function, MassDOT will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

(3) A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, MassDOT will examine similar transactions, particularly those in which DBEs do not participate.

b. Counting Participation Toward The Contract Participation Goal

DBE participation which serves a commercially useful function shall be counted toward the DBE participation goal in accordance with the Provisions of 49 CFR Part 26.55(a) to (h), as follows:

(1) When a DBE participates in a construction Contract, MassDOT will count the value of the work performed by the DBE's own forces. MassDOT will count the cost of supplies and materials obtained by the DBE for the work of its contract, including supplies purchased or equipment leased by the DBE. Supplies, labor, or equipment the DBE Subcontractor uses, purchases, or leases from the Prime Contractor or any affiliate of the Prime Contractor will not be counted.

(2) MassDOT will count the entire amount of fees or commissions charged by a DBE firm for providing bona fide services, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a U.S. DOT assisted Contract, toward DBE participation goals, provided it is determined that the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.

(3) When a DBE performs as a participant in a joint venture, MassDOT will count toward DBE participation goals a portion of the total dollar value of the contract that is equal to the distinct, clearly defined portion of the work of the Contract that the DBE performs with its own forces.

(4) MassDOT will use the following factors in determining whether a DBE trucking company is performing a commercially useful function:

(i) the DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract; there cannot be a contrived arrangement for the purpose of meeting DBE participation goals.

(ii) the DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the Contract.

(iii) the Contractor will receive DBE credit for the total value of the transportation services the DBE provides on the Contract using trucks owned, insured, and operated by the DBE itself and using drivers the DBE employs alone.

(iv) the DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The Contractor who has a contract with a DBE who leases trucks from another DBE will receive credit for the total value of the transportation services of the lease.

(v) the DBE may also lease trucks from a non-DBE firm, including an owner-operator. The Contractor who has a Contract with a DBE who leases trucks from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE lessees not to the exceed the value of transportation services provided by DBE-owned trucks on the Contract. Additional participation by non-DBE lessees receives credit only for the fee or commission it receives as a result of the lease arrangement, fee or commission it receives as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.

(vi) the lease must indicate that the DBE has exclusive use of, and control over, the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

(5) MassDOT will count the Prime Contractor's expenditures with DBEs for materials or supplies toward DBE participation goals as follows:

(i) if the materials or supplies are obtained from a DBE manufacturer, as defined in Section 1 above, MassDOT will count one hundred (100%) percent of the cost of the materials or supplies toward DBE participation goals, provided the DBE meets the other requirements of the regulations.

(ii) if the materials or supplies are purchased from a DBE regular dealer, as defined in Section 1 above, MassDOT will count sixty (60%) percent of the cost of the materials or supplies toward the Contract participation goal, provided the DBE meets the other requirements of the regulations.

(iii) for materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, MassDOT will count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site toward the Contract participation goal, provided that MassDOT determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services; the cost of the materials and supplies themselves will not be counted; and provided the DBE meets the other requirements of the regulations.

c. Joint Check Policy

MassDOT recognizes that the use of joint checks may be a business practice required by material suppliers and vendors in the construction industry. A joint check is a two-party check issued by a/the Prime Contractor to a DBE third party such as a regular dealer of material or supplies. The Prime Contractor issues the check as payor to the DBE and the third party jointly as payees to guarantee payment to the third party for materials or supplies obtained or to be used by the DBE. FHWA has established criteria to ensure that DBEs are in fact performing a commercially useful function ("CUF") while using a joint check arrangement. Contractors and DBEs must meet and conform to these conditions and criteria governing the use of joint checks.

In the event that a Contractor or DBE Subcontractor desires to a use joint check, MassDOT will require prior notice and will closely monitor the arrangement for compliance with FHWA regulations and guidance. MassDOT may allow a joint check arrangement and give credit to a Contractor for use of the DBE where one or more of the following conditions exist:

- The use of a joint check is in fact required by this type of vendor or supplier as a standard industry practice that applies to all Contractors (DBEs and non-DBEs); or is required by a specific vendor or supplier;
- Payment for supplies or materials would be delayed for an unreasonably extended period without the joint check arrangement;
- The DBE (or any of its Subcontractors) has a pattern or history of not paying a vendor or supplier within a reasonable time or has not established enough of a credit history with the supplier or vendor; and/or
- The presence of severe adverse economic conditions, where credit resources may be limited and such practices may be necessary or required to effect timely payments.

Other factors MassDOT may consider:

- Whether there is a requirement by the Prime Contractor that a DBE should use a specific vendor or supplier to meet their Subcontractor specifications;
- Whether there is a requirement that a DBE use the Prime Contractor's negotiated price;
- The independence of the DBE;
- Whether approval has been sought prior to use of a joint check arrangement; and
- Whether any approved joint check arrangement has exceeded a reasonable period of use;
- The operation of the joint check arrangement; and
- Whether the DBE has made an effort to establish alternate arrangements for following periods (i.e., the DBE must show it can, or has, or why it has not, established or increased a credit line with the vendor or supplier).

Even with the use of a Joint Check, both the Contractor and DBE remain responsible for compliance with all other elements under 49 CFR § 26.55 (c) (1), and must still be able to prove that a commercially useful function is being performed for the Contractor.

d. Joint Check Procedure(s)

- The DBE advises its General or Prime Contractor that it will have to use a Joint Check and provide proof of such requirement.
- The General or the Prime Contractor submits a request for approval to MassDOT, using MassDOT's approved Joint Check Request form (Document B00855) and by notification on the DBE Letter of Intent (Document B00854), and any other relevant documents. Requests that are not initiated during the bid process should be made in writing and comply with the procedure.
- The MassDOT Office of Civil Rights will review the request and render a decision as part of the approval process for DBE Schedules and Letters of Intent.
- Review and Approval will be project specific and relevant documents will be made part of the project Contract file.
- Payments should be made in the name of both the DBE and vendor or supplier. Payments should be issued and signed by the Contractor as only the guarantor for prompt payment of purchases to the vendor or supplier. The payment to the vendor or supplier should be handled by the DBE (i.e. if possible, funds or the joint check should be processed by the DBE and sent by the DBE to the vendor or supplier).
- MassDOT may request copies of cancelled checks (front and back) and transmittal information to verify any payments made to the DBE and vendor or supplier.
- MassDOT may request other information and documents, and may ask questions of the Contractor, Subcontractor and vendor or supplier prior to, during, and after the project performance to ascertain whether the Subcontractor is performing a commercially useful function and all parties are complying with DBE Program policies and procedures as part of the Subcontractor approval process.

7. AWARD DOCUMENTATION AND PROCEDURES

a. The two lowest bidders/the two bidders with the lowest price per quality score point, shall submit, by the close of business on the third (3rd) business day after the bid opening, a completed Schedule of Participation by DBEs (Document B00853) which shall list:

(1) The full company name, address and telephone number of each DBE with whom the bidder intends to make a commitment.

(2) The contract item(s), by number(s) and quantity(ies), if applicable, or specific description of other business activity to be performed by each DBE as set forth in the Letters of Intent. The Bidder shall list only firms which have the capacity to perform, manage and supervise the work proposed in accordance with the requirements of 49 CFR Part 26 and Section **6.b** of these Special Provisions.

(3) The total dollar amount to be paid to each DBE. (Bidders are cautioned that at least one half of the participation goal must be met with construction activity work.)

(4) The total dollar amount to be paid to each DBE that is eligible for credit toward the DBE participation goal under the counting rules set out in Section **6.b**.

(5) The total creditable DBE participation as a percentage of the total bid price.

b. All firms listed on the Schedule must be currently certified.

c. The two lowest bidders/the two bidders with the lowest price per quality score point, shall each submit, with their Schedules of Participation, fully completed, signed Letters of Intent (Document B00854) from each of the DBEs listed on the Schedule. The Letters of Intent shall be in the form attached and shall identify specifically the contract activity the DBE proposes to perform, expressed as contract item number, if applicable, description of the activity, NAICS code, quantity, unit price and total price. In the event of discrepancy between the Schedule and the Letter of Intent, the Letter of Intent shall govern.

d. Evidence of good faith efforts will be evaluated by MassDOT in the selection of the lowest responsible bidder.

All information requested by MassDOT for the purpose of evaluating the Contractor's efforts to achieve the participation goal must be provided within three (3) calendar days and must be accurate and complete in every detail. The apparent low bidder's attainment of the DBE participation goal or a satisfactory demonstration of good faith efforts is a prerequisite for award of the Contract.

e. Failure to meet, or to demonstrate good faith efforts to meet, the requirements of these Special Provisions shall render a bid non-responsive. Therefore, in order to be eligible for award, the bidder (1) must list all DBE's it plans to employ on the Schedule of Participation; and provide the required Letters of Intent for, DBE participation which meets or exceeds the Contract goal in accordance with the terms of these Special Provisions or (2) must demonstrate, to the satisfaction of MassDOT, that good faith efforts were made to achieve the participation goal. MassDOT will adhere to the guidance provided in Appendix A to 49 CFR Part 26 on the determination of a Contractor's good faith efforts to meet the DBE participation goal(s) set forth in Section 2 herein.

f. If MassDOT finds that the percentage of DBE participation submitted by the bidder on its Schedule does not meet the Contract participation goal, or that Schedule and Letters of Intent were not timely filed, and that the bidder has not demonstrated good faith efforts to comply with these requirements, it shall propose that the bidder be declared ineligible for award. In that case, the bidder may request administrative reconsideration. Such requests must be sent in writing within three (3) calendar days of receiving notice of proposed ineligibility to: The Office of the General Counsel, Massachusetts Department of Transportation, 10 Park Plaza, Boston, MA, 02116.

g. If, after administrative reconsideration, MassDOT finds that the bidder has not shown that sufficient good faith efforts were made to comply with the requirements of these Special Provisions, it shall reject the bidder's proposal and may retain the proposal guaranty.

h. Actions which constitute evidence of good faith efforts to meet a DBE participation goal include, but are not limited to, the following examples, which are set forth in 49 CFR Part 26, Appendix A:

(1) Soliciting through all reasonable and available means (e.g., attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the Contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE participation goal will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Prime Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE Subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE Subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone number of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

A bidder using good business judgment would consider a number of factors in negotiating with Subcontractors, including DBE Subcontractors, and would take a firm's price and capabilities as well as Contract participation goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the Contract DBE participation goal, as long as such costs are reasonable. Also, the ability or desire of a Prime Contractor to perform the work of a Contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime Contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

(5) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. Contractors should be careful of adding additional requirements of performance that would in effect limit participation by DBEs or any small business. The Contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. nonunion employee status) are not legitimate causes for the rejection or non-solicitation of bids in the Contractor's efforts to meet the Contract participation goal.

(6) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

(7) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case by case basis to provide assistance in the recruitment and placement of DBEs.

8. COMPLIANCE

a. All activity performed by a DBE for credit toward the Contract participation goal must be performed, managed and supervised by the DBE in accordance with all commercially useful function requirements of 49 CFR Part 26. The Prime Contractor shall not enter into, or condone, any other arrangement.

b. The Prime Contractor shall not perform with its own organization, or assign to any other business, an activity designated for the DBE(s) named on the Schedule(s) submitted by the Prime Contractor under Section 7 or under paragraph **8.f** of this section, without the approval of MassDOT in accordance with the requirements of paragraphs **8.f** and **8.j** of this section.

c. MassDOT may suspend payment for any activity that was not performed by the DBE to whom the activity was committed on the approved Schedule of Participation, or that was not performed in accordance with the requirements of Section 6.

d. MassDOT retains the right to approve or disapprove of any or all Subcontractors. Requests by the Prime Contractor for approval of participation by a DBE Subcontractor for credit toward the Contract participation goal must include, in addition to any other requirements for Subcontractor approval, the following:

(1) A copy of the proposed subcontract. The subcontract must be for at least the dollar amount, and for the work described, in the Bidder's Schedule of Participation.

(2) A resume stating the qualifications and experience of the DBE Superintendent and/or foreperson who will supervise the on-site work. A new resume will be required for any change in supervisory personnel during the progress of the work.

(3) A Schedule of Operations indicating when the DBE is expected to perform the work.

(4) A list of (1) equipment owned by the DBE to be used on the Project, and (2) equipment to be leased by the DBE for use on the Project.

(5) A list of: (1) all projects (public and private) which the DBE is currently performing; (2) all projects (public and private) to which the DBE is committed; and (3) all projects (public and private) to which the DBE intends to make a commitment. For each Contract, list the contracting organization, the name and telephone number of a contact person for the contracting organization, the dollar value of the work, a description of the work, and the DBE's work schedule for each project.

e. If, pursuant to the Subcontractor approval process, MassDOT finds that a DBE Subcontractor does not have sufficient experience or resources to perform, manage and supervise work of the kind proposed in accordance with the requirements of 49 CFR Part 26, approval of the DBE Subcontractor may be denied. In the event of such denial, the Prime Contractor shall proceed in accordance with the requirements paragraphs **8.f** and **8.j** of this section.

f. If, for reasons beyond its control, the Prime Contractor cannot comply with its DBE participation commitment in accordance with the Schedule of Participation submitted under Section 7, the Prime Contractor shall submit to MassDOT the reasons for its inability to comply with its obligations and shall submit, and request approval for, a revised Schedule of Participation. If approved by MassDOT, the revised Schedule shall govern the Prime Contractor's performance in meeting its obligations under these Special Provisions.

g. A Prime Contractor's compliance with the participation goal in Section 2 shall be determined by reference to the established percentage of the total contract price, provided, however, that no decrease in the dollar amount of a bidder's commitment to any DBE shall be allowed without the approval of MassDOT.

h. If the contract amount is increased, the Prime Contractor may be required to submit a revised Schedule of Participation in accordance with paragraphs **8.f** and **8.j** of this section.

i. In the event of the decertification of a DBE scheduled to participate on the Contract for credit toward the participation goal, but not under subcontract, the Contractor shall proceed in accordance with paragraphs **8.f** and **8.j** of this section.

j. The Prime Contractor shall notify MassDOT immediately of any facts that come to its attention indicating that it may or will be unable to comply with any aspect of its DBE obligation under this Contract.

k. Any notice required by these Special Provisions shall be given in writing to: (1) the Resident Engineer; (2) the District designated Compliance Officer; and (3) the DBE Liaison Officer, MassDOT Office of Civil Rights, 10 Park Plaza, – 3rd Floor - West, Boston, MA, 02116 and cc'd to the Deputy Chief of External Programs.

l. The Prime Contractor and its Subcontractors shall comply with MassDOT's Electronic Reporting System Requirements (MassDOT Document 00821) and submit all information required by MassDOT related to the DBE Special Provisions through the Equitable Business Opportunity Solution ("EBO"). MassDOT reserves the right to request reports in the format it deems necessary anytime during the performance of the Contract.

m. Termination of DBE by Prime Contractor

(1) A Prime Contractor shall not terminate a DBE Subcontractor or an approved substitute DBE firm without the prior written consent of MassDOT. This includes, but is not limited to, instances in which a Prime Contractor seeks to perform work originally designated for a DBE Subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

(2) MassDOT may provide such written consent only if MassDOT agrees, for reasons stated in its concurrence document, that the Prime Contractor has good cause to terminate the DBE firm.

(3) For purposes of this paragraph, good cause includes the following circumstances:

(i) The DBE Subcontractor fails or refuses to execute a written contract;

(ii) The DBE Subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Good cause, however, does not exist if the failure or refusal of the DBE Subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Prime Contractor;

(iii) The DBE Subcontractor fails or refuses to meet the Prime Contractor's reasonable, nondiscriminatory bond requirements.

(iv) The DBE Subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;

(v) The DBE Subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable State law;

(vi) (vii) MassDOT has determined that the listed DBE Subcontractor is not a responsible contractor;

(vii) The listed DBE Subcontractor voluntarily withdraws from the Project and provides written notice of its withdrawal;

(viii) The listed DBE is ineligible to receive DBE credit for the type of work required;

(ix) A DBE owner dies or becomes disabled with the result that the listed DBE Contractor is unable to complete its work on the Contract;

(x) Other documented good cause that MassDOT determines compels the termination of the DBE Subcontractor. Good cause, however, does not exist if the Prime Contractor seeks to terminate a DBE it relied upon to obtain the Contract so that the Prime Contractor can self-perform the DBE work or substitute another DBE or non-DBE Contractor after Contract Award.

(4) Before transmitting to MassDOT a request to terminate and/or substitute a DBE Subcontractor, the Prime Contractor must give notice in writing to the DBE Subcontractor, with a copy to MassDOT, of its intent to request to terminate and/or substitute, and the reason for the request.

(5) The Prime Contractor must give the DBE five (5) business days to respond to the Prime Contractor's notice. The DBE must advise MassDOT and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why MassDOT should not approve the Prime Contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), MassDOT may provide a response period shorter than five (5) business days.

(6) In addition to post-award terminations, the provisions of this section apply to pre-award deletions of or substitutions for DBE firms.

n. Prompt Payment.

Contractors are required to promptly pay Subcontractors under this Prime Contract within ten (10) business days from the receipt of each payment the Prime Contractor receives from MassDOT. Failure to comply with this requirement may result in the withholding of payment to the Prime Contractor until such time as all payments due under this provision have been received by the Subcontractor(s) and/or referral to the Prequalification Committee for action which may affect the Contractor's prequalification status.

9. SANCTIONS

If the Prime Contractor does not comply with the terms of these Special Provisions and cannot demonstrate to the satisfaction of MassDOT that good faith efforts were made to achieve such compliance, MassDOT may, in addition to any other remedy provided for in the Contract, and notwithstanding any other provision in the Contract:

a. Retain, in connection with final acceptance and final payment processing, an amount determined by multiplying the total contract amount by the percentage in Section 2, less the amount paid to approved DBE(s) for work performed under the Contract in accordance with the provisions of Section 8.

b. Suspend, terminate or cancel this Contract, in whole or in part, and call upon the Prime Contractor's surety to perform all terms and conditions in the Contract.

c. In accordance with 720 CMR 5.05(1)(f), modify or revoke the Prime Contractor's Prequalification status or recommend that the Prime Contractor not receive award of a pending Contract. The Prime Contractor may appeal the determination of the Prequalification Committee in accordance with the provisions of 720 CMR 5.06.

d. Initiate debarment proceedings pursuant to M.G.L. c. 29 §29F and, as applicable, 2 CFR Parts 180, 215 and 1,200.

e. Refer the matter to the Massachusetts Attorney General for review and prosecution, if appropriate, of any false claim or pursuant to M.G.L. c. 12, §§ 5A to 5O (the Massachusetts False Claim Act).

f. Refer the matter to the U.S. DOT's Office of the Inspector General or other agencies for prosecution under Title 18, U.S.C. § 1001, 49 CFR Parts 29 and 31, and other applicable laws and regulations.

10. FURTHER INFORMATION; ENFORCEMENT, COOPERATION AND CONFIDENTIALITY.

a. Any proposed DBE, bidder, or Contractor shall provide such information as is necessary in the judgment of MassDOT to ascertain its compliance with the terms of this Special Provision. Further, pursuant to 49 CFR, Part 26.107:

(1) If you are a firm that does not meet the eligibility criteria of 49 CFR, Parts 26.61 to 26.73 ("subpart D"), that attempts to participate in a DOT- assisted program as a DBE on the basis of false, fraudulent, or deceitful statements or representations or under circumstances indicating a serious lack of business integrity or honesty, MassDOT or FHWA may initiate suspension or debarment proceedings against you under 49 CFR Part 29.

(2) If you are a firm that, in order to meet DBE Contract participation goals or other DBE Program requirements, uses or attempts to use, on the basis of false, fraudulent or deceitful statements or representations or under circumstances indicating a serious lack of business integrity or honesty, another firm that does not meet the eligibility criteria of subpart D, FHWA may initiate suspension or debarment proceedings against you under 49 CFR Part 29.

(3) In a suspension or debarment proceeding brought either under subparagraph a.(1) or b.(2) of this section, the concerned operating administration may consider the fact that a purported DBE has been certified by a recipient. Such certification does not preclude FHWA from determining that the purported DBE, or another firm that has used or attempted to use it to meet DBE participation goals, should be suspended or debarred.

(4) FHWA may take enforcement action under 49 CFR Part 31, Program Fraud and Civil Remedies, against any participant in the DBE Program whose conduct is subject to such action under 49 CFR Part 31.

(5) FHWA may refer to the Department of Justice, for prosecution under 18 U.S.C. 1001 or other applicable provisions of law, any person who makes a false or fraudulent statement in connection with participation of a DBE in any DOT-assisted program or otherwise violates applicable Federal statutes.

b. Pursuant to 49 CFR Part 26.109, the rules governing information, confidentiality, cooperation, and intimidation or retaliation are as follows:

(1) Availability of records.

(i) In responding to requests for information concerning any aspect of the DBE Program, FHWA complies with provisions of the Federal Freedom of Information and Privacy Acts (5 U.S.C. 552 and 552a). FHWA may make available to the public any information concerning the DBE Program release of which is not prohibited by Federal law.

(ii) MassDOT shall safeguard from disclosure to unauthorized persons information that may reasonably be considered as confidential business information, consistent with Federal and Massachusetts General Law (M.G.L. c. 66, § 10, M.G.L. c. 4, §7 (26), 950 CMR 32.00).

(2) Confidentiality of information on complainants. Notwithstanding the provisions of subparagraph b.(1) of this section, the identity of complainants shall be kept confidential, at their election. If such confidentiality will hinder the investigation, proceeding or hearing, or result in a denial of appropriate administrative due process to other parties, the complainant must be advised for the purpose of waiving the privilege. Complainants are advised that, in some circumstances, failure to waive the privilege may result in the closure of the investigation or dismissal of the proceeding or hearing.

(3) Cooperation. All participants in FHWA's DBE Program (including, but not limited to, recipients, DBE firms and applicants for DBE certification, complainants and appellants, and Contractors using DBE firms to meet Contract participation goals) are required to cooperate fully and promptly with U.S. DOT and recipient compliance reviews, certification reviews, investigations, and other requests for information. Failure to do so shall be a ground for appropriate action against the party involved (e.g., with respect to recipients, a finding of noncompliance; with respect to DBE firms, denial of certification or removal of eligibility and/or suspension and debarment; with respect to a complainant or appellant, dismissal of the complaint or appeal; with respect to a Contractor which uses DBE firms to meet participation goals, findings of non-responsibility for future Contracts and/or suspension and debarment).

(4) Intimidation and retaliation. No recipient, Contractor, or any other participant in the program, may intimidate, threaten, coerce, or discriminate against any individual or firm for the purpose of interfering with any right or privilege secured by this part or because the individual or firm has made a complaint, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under this part. If any recipient or contractor violates this prohibition, that entity is in noncompliance with this 49 CFR Part 26.

11. LIST OF ADDITIONAL DOCUMENTS.

a. The following documents shall be completed and signed by the bidder and designated DBEs in accordance with Section 7 - Award Documentation and Procedures. These documents must be returned by the bidder to MassDOT's Bid Document Distribution Center:

- □ Schedule of DBE Participation (Document B00853)
- □ Letter of Intent (Document B00854)
- □ DBE Joint Check Arrangement Approval Form (Document B00855), if Contractor and DBE plan, or if DBE is required to use a Joint Check

b. The following document shall be signed and returned by Contractor and Subcontractors/DBEs to the MassDOT District Office overseeing the Project, as applicable:

- □ Contractor/Subcontractor Certification Form (Document No. 00859) (a checklist of other documents to be included with every subcontract (DBEs and non-DBEs alike)).

c. The following document shall be provided to MassDOT's Office of Civil Rights and Prequalification Office at least fourteen (14) business days before the bid opening date, if applicable:

- □ Affidavit of DBE/Non-DBE Joint Venture (Document B00856)

d. The following document shall be provided to MassDOT's District Office of Civil Rights within 30 calendar days after the work of the DBE is completed, or no later than 30 calendar days after the work of the DBE is on a completed and processed CQE. This document shall be completed and submitted by the Prime Contractor:

- □ Certificate of Completion by a Minority/Women or Disadvantaged Business Enterprise (M/W/DBE) (Form No. CSD-100)

*** END OF DOCUMENT ***

DOCUMENT 00760

FHWA-1273 – Revised October 23, 2023

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. 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. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements 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 shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The 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, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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 (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 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; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 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; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. 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. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 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 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 are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. 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 V, 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

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

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 IV. 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 FHWA-1273 in any subcontracts, 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.

V. 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.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) 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 IV 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.

VI. 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 Section VI 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 Section VI 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).

VII. 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).

VIII. 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."

IX. 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.

X. 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.

* * * * *

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.

* * * * *

XI. 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.

XII. 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 (23 CFR 633, Subpart B, Appendix B) 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 23 CFR 633.207(e) 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

June 18, 2025

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	$0.52
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	$0.73
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	$0.73
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	$0.75
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	$0.79
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	$0.74
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	$0.79
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	$0.74
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	$0.82
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	$0.75
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	$0.82
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	$0.75
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	$0.86
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	$0.92
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	$1.41
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	$0.82
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	$0.75
18	ASTM A276 Type 316 Stainless Steel	$4.24
19	ASTM A240 Type 316 Stainless Steel	$4.24
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	$1.46
21	ASTM A53 Grade B Structural Steel Pipe	$0.92
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	$0.92
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	$0.73
24	ASTM 252, Grade 2 Permanent Steel Casing	$0.73
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	$0.77
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	$1.39
27	ASTM A572 / A572M, Grade 50 Sheetpiling	$1.39
28	ASTM A36/36M, Grade 50	$0.79
29	ASTM A570, Grade 50	$0.77
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	$0.79
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	$0.92
32	AREA 140 LB Rail and Track Accessories	$0.48

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.

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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: 130934 **Project No.** 609255 **Federal Aid No.:** CMQ/STP-0035(063)X

Location: MANSFIELD

Project Description: Multimodal Accommodation on School Street, from Spring Street to West Street

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. You may also find guidance at: http://www.dol.gov/ofccp/TAguides/consttag.pdf or http://www.wdol.gov/dba.aspx#0.
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.

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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 HEALY
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:	MassDOT	**City/Town:**	MANSFIELD
Contract Number:	130934		
Description of Work:	MANSFIELD - Federal Aid Project No. CMQ/STP-0035(063)X Multimodal Accommodation on School Street, from Spring Street to West Street		
Job Location:	on School Street, from Spring Street to West Street		

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.
- This annual update requirement is generally not applicable to 27F “rental of equipment” contracts. For such contracts, the prevailing wage rates issued by DLS shall remain in effect for the duration of the contract term. However, if the prevailing wage rate sheet issued does not contain wage rates for each year covered by the contract term, the Awarding Authority must request updated rate sheets from DLS and provide them to the contractor to ensure the correct rates are being paid throughout the duration of the contract. Additionally, if an Awarding Authority exercises an option to renew or extend the contract term, they must request updated rate sheets form DLS and provide them to the contractor.
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (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	6/1/2025	$40.95	$15.57	$20.17	$0.00	$0.00	$76.69
	12/1/2025	$40.95	$15.57	$21.78	$0.00	$0.00	$78.30
	1/1/2026	$40.95	$16.17	$21.78	$0.00	$0.00	$78.90
	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	6/1/2025	$41.02	$15.57	$20.17	$0.00	$0.00	$76.76
	12/1/2025	$41.02	$15.57	$21.78	$0.00	$0.00	$78.37
	1/1/2026	$41.02	$16.17	$21.78	$0.00	$0.00	$78.97
	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	6/1/2025	$41.14	$15.57	$20.17	$0.00	$0.00	$76.88
	12/1/2025	$41.14	$15.57	$21.78	$0.00	$0.00	$78.49
	1/1/2026	$41.14	$16.17	$21.78	$0.00	$0.00	$79.09
	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 1)	1/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
For apprentice rates see "Apprentice- PILE DRIVER"							
AIR TRACK OPERATOR LABORERS LABORERS - ZONE 2	6/1/2025	$41.09	$9.90	$9.25	$9.11	$0.00	$69.35
	12/1/2025	$42.47	$9.90	$9.25	$9.11	$0.00	$70.73
	6/1/2026	$43.91	$9.90	$9.25	$9.11	$0.00	$72.17
	12/1/2026	$45.35	$9.90	$9.25	$9.11	$0.00	$73.61
	6/1/2027	$46.80	$9.90	$9.25	$9.11	$0.00	$75.06
	12/1/2027	$48.25	$9.90	$9.25	$9.11	$0.00	$76.51
	6/1/2028	$49.75	$9.90	$9.25	$9.11	$0.00	$78.01
	12/1/2028	$51.25	$9.90	$9.25	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$41.09	$9.90	$9.25	$9.21	$0.00	$69.45
	12/1/2025	$42.47	$9.90	$9.25	$9.21	$0.00	$70.83
	6/1/2026	$43.91	$9.90	$9.25	$9.21	$0.00	$72.27
	12/1/2026	$45.35	$9.90	$9.25	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS WORKER (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (SOUTHERN MASS)	6/1/2025	$43.80	$14.50	$4.30	$6.75	$0.00	$69.35
	12/1/2025	$44.80	$14.50	$4.30	$6.75	$0.00	$70.35
ASPHALT RAKER LABORERS LABORERS - ZONE 2	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$40.59	$9.90	$9.25	$9.21	$0.00	$68.95
	12/1/2025	$41.97	$9.90	$9.25	$9.21	$0.00	$70.33
	6/1/2026	$43.41	$9.90	$9.25	$9.21	$0.00	$71.77
	12/1/2026	$44.85	$9.90	$9.25	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2025	$58.33	$15.55	$13.25	$3.25	$0.00	$90.38
	12/1/2025	$59.78	$15.55	$13.25	$3.25	$0.00	$91.83
	6/1/2026	$61.08	$15.55	$13.25	$3.25	$0.00	$93.13
	12/1/2026	$62.53	$15.55	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2025	$58.33	$15.55	$13.25	$3.25	$0.00	$90.38
	12/1/2025	$59.78	$15.55	$13.25	$3.25	$0.00	$91.83
	6/1/2026	$61.08	$15.55	$13.25	$3.25	$0.00	$93.13
	12/1/2026	$62.53	$15.55	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER LABORERS LABORERS - ZONE 2	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER LABORERS LABORERS - ZONE 2	6/1/2025	$41.09	$9.90	$9.25	$9.11	$0.00	$69.35
	12/1/2025	$42.47	$9.90	$9.25	$9.11	$0.00	$70.73
	6/1/2026	$43.91	$9.90	$9.25	$9.11	$0.00	$72.17
	12/1/2026	$45.35	$9.90	$9.25	$9.11	$0.00	$73.61
	6/1/2027	$46.80	$9.90	$9.25	$9.11	$0.00	$75.06
	12/1/2027	$48.25	$9.90	$9.25	$9.11	$0.00	$76.51
	6/1/2028	$49.75	$9.90	$9.25	$9.11	$0.00	$78.01
	12/1/2028	$51.25	$9.90	$9.25	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$41.09	$9.90	$9.25	$9.21	$0.00	$69.45
	12/1/2025	$42.47	$9.90	$9.25	$9.21	$0.00	$70.83
	6/1/2026	$43.91	$9.90	$9.25	$9.21	$0.00	$72.27
	12/1/2026	$45.35	$9.90	$9.25	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BOILER MAKER BOILERMAKERS LOCAL 29 BOILERMAKERS LOCAL 29	1/1/2024	$48.12	$7.07	$14.60	$6.00	$0.00	$75.79

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

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (FOXBORO)	2/1/2025	$63.66	$11.49	$15.57	$7.33	$0.00	$98.05
	8/1/2025	$65.81	$11.49	$15.57	$7.33	$0.00	$100.20
	2/1/2026	$67.16	$11.49	$15.57	$7.33	$0.00	$101.55
	8/1/2026	$69.36	$11.49	$15.57	$7.33	$0.00	$103.75
	2/1/2027	$70.76	$11.49	$15.57	$7.33	$0.00	$105.15

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

Effective Date: 2/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$31.83	$11.49	$15.57	$7.33	$0.00	$66.22
2	60.00	$38.20	$11.49	$15.57	$7.33	$0.00	$72.59
3	70.00	$44.56	$11.49	$15.57	$7.33	$0.00	$78.95
4	80.00	$50.93	$11.49	$15.57	$7.33	$0.00	$85.32
5	90.00	$57.29	$11.49	$15.57	$7.33	$0.00	$91.68

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

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$32.91	$11.49	$15.57	$7.33	$0.00	$67.30
2	60.00	$39.49	$11.49	$15.57	$7.33	$0.00	$73.88
3	70.00	$46.07	$11.49	$15.57	$7.33	$0.00	$80.46
4	80.00	$52.65	$11.49	$15.57	$7.33	$0.00	$87.04
5	90.00	$59.23	$11.49	$15.57	$7.33	$0.00	$93.62

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN	6/1/2025	$48.85	$9.90	$9.25	$9.80	$0.00	$77.80
LABORERS	12/1/2025	$50.35	$9.90	$9.25	$9.80	$0.00	$79.30
LABORERS - FOUNDATION AND MARINE	6/1/2026	$51.90	$9.90	$9.25	$9.80	$0.00	$80.85
	12/1/2026	$53.40	$9.90	$9.25	$9.80	$0.00	$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER	6/1/2025	$47.70	$9.90	$9.25	$9.80	$0.00	$76.65
LABORERS	12/1/2025	$49.20	$9.90	$9.25	$9.80	$0.00	$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.75	$9.90	$9.25	$9.80	$0.00	$79.70
	12/1/2026	$52.25	$9.90	$9.25	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN	6/1/2025	$48.03	$9.90	$9.25	$9.80	$0.00	$76.98
LABORERS	12/1/2025	$49.53	$9.90	$9.25	$9.80	$0.00	$78.48
LABORERS - FOUNDATION AND MARINE	6/1/2026	$51.08	$9.90	$9.25	$9.80	$0.00	$80.03
	12/1/2026	$52.58	$9.90	$9.25	$9.80	$0.00	$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
LABORERS	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
LABORERS - ZONE 2	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
CARPENTER	3/1/2025	$49.62	$9.83	$11.47	$8.50	$0.00	$79.42
CARPENTERS	9/1/2025	$50.87	$9.83	$11.47	$8.50	$0.00	$80.67
CARPENTERS -ZONE 2 (Eastern Massachusetts)	3/1/2026	$52.12	$9.83	$11.47	$8.50	$0.00	$81.92
	9/1/2026	$53.37	$9.83	$11.47	$8.50	$0.00	$83.17
	3/1/2027	$54.62	$9.83	$11.47	$8.50	$0.00	$84.42

Apprentice: CARPENTER

Effective Date: 3/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.33	$9.83	$0.00	$1.73	$0.00	$33.89
2	45.00	$22.33	$9.83	$0.00	$1.73	$0.00	$33.89
3	55.00	$27.29	$9.83	$0.00	$3.40	$0.00	$40.52
4	55.00	$27.29	$9.83	$0.00	$3.40	$0.00	$40.52
5	70.00	$34.73	$9.83	$11.41	$5.10	$0.00	$61.07
6	70.00	$34.73	$9.83	$11.41	$5.10	$0.00	$61.07
7	80.00	$39.70	$9.83	$11.44	$6.80	$0.00	$67.77
8	80.00	$39.70	$9.83	$11.44	$6.80	$0.00	$67.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CARPENTER WOOD FRAME	10/1/2024	$26.65	$7.02	$3.80	$1.00	$0.00	$38.47
CARPENTERS	10/1/2025	$27.75	$7.02	$3.80	$1.00	$0.00	$39.57
CARPENTERS-ZONE 3 (Wood Frame)	10/1/2026	$28.85	$7.02	$3.80	$1.00	$0.00	$40.67

All Aspects of New Wood Frame Work

Apprentice: CARPENTER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$22.89	$9.83	$0.00	$1.73	$0.00	$34.45
2	45.00	$22.89	$9.83	$0.00	$1.73	$0.00	$34.45
3	55.00	$27.98	$9.83	$0.00	$3.40	$0.00	$41.21
4	55.00	$27.98	$9.83	$0.00	$3.40	$0.00	$41.21
5	70.00	$35.61	$9.83	$11.41	$5.10	$0.00	$61.95
6	70.00	$35.61	$9.83	$11.41	$5.10	$0.00	$61.95
7	80.00	$40.70	$9.83	$11.44	$6.80	$0.00	$68.77
8	80.00	$40.70	$9.83	$11.44	$6.80	$0.00	$68.77

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$15.99	$7.02	$0.00	$0.00	$0.00	$23.01
2	60.00	$15.99	$7.02	$0.00	$0.00	$0.00	$23.01
3	65.00	$17.32	$7.02	$0.00	$1.00	$0.00	$25.34
4	70.00	$18.66	$7.02	$0.00	$1.00	$0.00	$26.68
5	75.00	$19.99	$7.02	$3.80	$1.00	$0.00	$31.81
6	80.00	$21.32	$7.02	$3.80	$1.00	$0.00	$33.14
7	85.00	$22.65	$7.02	$3.80	$1.00	$0.00	$34.47
8	90.00	$23.99	$7.02	$3.80	$1.00	$0.00	$35.81

Apprentice: CARPENTER WOOD FRAME

Effective Date: 10/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
2	60.00	$16.65	$7.02	$0.00	$0.00	$0.00	$23.67
3	65.00	$18.04	$7.02	$0.00	$1.00	$0.00	$26.06
4	70.00	$19.43	$7.02	$0.00	$1.00	$0.00	$27.45
5	75.00	$20.81	$7.02	$3.80	$1.00	$0.00	$32.63
6	80.00	$22.20	$7.02	$3.80	$1.00	$0.00	$34.02
7	85.00	$23.59	$7.02	$3.80	$1.00	$0.00	$35.41
8	90.00	$24.98	$7.02	$3.80	$1.00	$0.00	$36.80

CEMENT MASONRY/PLASTERING	7/1/2024	$49.19	$13.35	$16.43	$7.78	$1.80	$88.55

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 (FOXBORO)							

Apprentice: CEMENT MASONRY/PLASTERING

Effective Date: 7/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.60	$13.35	$16.43	$0.00	$0.00	$54.38
2	60.00	$29.51	$13.35	$16.43	$2.78	$1.80	$63.87
3	65.00	$31.97	$13.35	$16.43	$3.78	$1.80	$67.33
4	70.00	$34.43	$13.35	$16.43	$4.78	$1.80	$70.79
5	75.00	$36.89	$13.35	$16.43	$5.78	$1.80	$74.25
6	80.00	$39.35	$13.35	$16.43	$6.78	$1.80	$77.71
7	90.00	$44.27	$13.35	$16.43	$7.78	$1.80	$83.63

CHAIN SAW OPERATOR LABORERS LABORERS - ZONE 2	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2025	$59.51	$15.55	$13.25	$3.25	$0.00	$91.56
	12/1/2025	$60.98	$15.55	$13.25	$3.25	$0.00	$93.03
	6/1/2026	$62.31	$15.55	$13.25	$3.25	$0.00	$94.36
	12/1/2026	$63.79	$15.55	$13.25	$3.25	$0.00	$95.84
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2025	$37.52	$15.55	$13.25	$3.25	$0.00	$69.57
	12/1/2025	$38.47	$15.55	$13.25	$3.25	$0.00	$70.52
	6/1/2026	$39.33	$15.55	$13.25	$3.25	$0.00	$71.38
	12/1/2026	$40.28	$15.55	$13.25	$3.25	$0.00	$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2025	$58.46	$9.95	$11.85	$12.10	$0.00	$92.36

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.23	$9.95	$0.00	$0.00	$0.00	$39.18
2	55.00	$32.15	$9.95	$0.00	$6.66	$0.00	$48.76
3	60.00	$35.08	$9.95	$0.00	$7.26	$0.00	$52.29

Construction

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

Apprentice: DELEADER (BRIDGE)

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
4	65.00	$38.00	$9.95	$0.00	$7.87	$0.00	$55.82
5	70.00	$40.92	$9.95	$11.85	$8.47	$0.00	$71.19
6	75.00	$43.85	$9.95	$11.85	$9.08	$0.00	$74.73
7	80.00	$46.77	$9.95	$11.85	$9.68	$0.00	$78.25
8	90.00	$52.61	$9.95	$11.85	$10.89	$0.00	$85.30

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DEMO: ADZEMAN LABORERS LABORERS - ZONE 2	6/2/2025	$47.75	$9.90	$9.25	$9.65	$0.00	$76.55
	12/1/2025	$49.25	$9.90	$9.25	$9.65	$0.00	$78.05
	6/1/2026	$50.80	$9.90	$9.25	$9.65	$0.00	$79.60
	12/7/2026	$52.30	$9.90	$9.25	$9.65	$0.00	$81.10
	6/7/2027	$53.90	$9.90	$9.25	$9.65	$0.00	$82.70
	12/6/2027	$55.50	$9.90	$9.25	$9.65	$0.00	$84.30
	6/5/2028	$57.18	$9.90	$9.25	$9.65	$0.00	$85.98
	12/4/2028	$58.85	$9.90	$9.25	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS LABORERS - ZONE 2	6/2/2025	$48.75	$9.90	$9.25	$9.65	$0.00	$77.55
	12/1/2025	$50.25	$9.90	$9.25	$9.65	$0.00	$79.05
	6/1/2026	$51.80	$9.90	$9.25	$9.65	$0.00	$80.60
	12/7/2026	$53.30	$9.90	$9.25	$9.65	$0.00	$82.10
	6/7/2027	$54.90	$9.90	$9.25	$9.65	$0.00	$83.70
	12/6/2027	$56.50	$9.90	$9.25	$9.65	$0.00	$85.30
	6/5/2028	$58.18	$9.90	$9.25	$9.65	$0.00	$86.98
	12/4/2028	$59.85	$9.90	$9.25	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							
DEMO: BURNERS LABORERS LABORERS - ZONE 2	6/2/2025	$48.50	$9.90	$9.25	$9.65	$0.00	$77.30
	12/1/2025	$50.00	$9.90	$9.25	$9.65	$0.00	$78.80
	6/1/2026	$51.55	$9.90	$9.25	$9.65	$0.00	$80.35
	12/7/2026	$53.05	$9.90	$9.25	$9.65	$0.00	$81.85
	6/7/2027	$54.65	$9.90	$9.25	$9.65	$0.00	$83.45
	12/6/2027	$56.25	$9.90	$9.25	$9.65	$0.00	$85.05
	6/5/2028	$57.93	$9.90	$9.25	$9.65	$0.00	$86.73
	12/4/2028	$59.60	$9.90	$9.25	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER LABORERS LABORERS - ZONE 2	6/2/2025	$48.75	$9.90	$9.25	$9.65	$0.00	$77.55
	12/1/2025	$50.25	$9.90	$9.25	$9.65	$0.00	$79.05
	6/1/2026	$51.80	$9.90	$9.25	$9.65	$0.00	$80.60
	12/7/2026	$53.30	$9.90	$9.25	$9.65	$0.00	$82.10
	6/7/2027	$54.90	$9.90	$9.25	$9.65	$0.00	$83.70
	12/6/2027	$56.50	$9.90	$9.25	$9.65	$0.00	$85.30
	6/5/2028	$58.18	$9.90	$9.25	$9.65	$0.00	$86.98
	12/4/2028	$59.85	$9.90	$9.25	$9.65	$0.00	$88.65
For apprentice rates see "Apprentice- LABORER"							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
DEMO: JACKHAMMER OPERATOR	6/2/2025	$48.50	$9.90	$9.25	$9.65	$0.00	$77.30
LABORERS	12/1/2025	$50.00	$9.90	$9.25	$9.65	$0.00	$78.80
LABORERS - ZONE 2	6/1/2026	$51.55	$9.90	$9.25	$9.65	$0.00	$80.35
	12/7/2026	$53.05	$9.90	$9.25	$9.65	$0.00	$81.85
	6/7/2027	$54.65	$9.90	$9.25	$9.65	$0.00	$83.45
	12/6/2027	$56.25	$9.90	$9.25	$9.65	$0.00	$85.05
	6/5/2028	$57.93	$9.90	$9.25	$9.65	$0.00	$86.73
	12/4/2028	$59.60	$9.90	$9.25	$9.65	$0.00	$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: WRECKING LABORER	6/2/2025	$47.75	$9.90	$9.25	$9.65	$0.00	$76.55
LABORERS	12/1/2025	$49.25	$9.90	$9.25	$9.65	$0.00	$78.05
LABORERS - ZONE 2	6/1/2026	$50.80	$9.90	$9.25	$9.65	$0.00	$79.60
	12/7/2026	$52.30	$9.90	$9.25	$9.65	$0.00	$81.10
	6/7/2027	$53.90	$9.90	$9.25	$9.65	$0.00	$82.70
	12/6/2027	$55.50	$9.90	$9.25	$9.65	$0.00	$84.30
	6/5/2028	$57.18	$9.90	$9.25	$9.65	$0.00	$85.98
	12/4/2028	$58.85	$9.90	$9.25	$9.65	$0.00	$87.65
For apprentice rates see "Apprentice- LABORER"							
DIRECTIONAL DRILL MACHINE OPERATOR	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DIVER	8/1/2024	$78.11	$10.08	$11.62	$10.04	$0.00	$109.85
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 1)							
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	8/1/2024	$55.79	$10.08	$11.62	$12.67	$0.00	$90.16
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 1)							
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)	8/1/2024	$83.69	$10.08	$11.62	$12.67	$0.00	$118.06
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 1)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DIVER/SLURRY (EFFLUENT)	8/1/2024	$117.16	$10.08	$11.62	$12.67	$0.00	$151.53
PILE DRIVER LOCAL 56							
PILE DRIVER LOCAL 56 (ZONE 1)							
For apprentice rates see "Apprentice- PILE DRIVER"							
DRAWBRIDGE OPERATOR (Construction)	7/1/2020	$26.77	$6.67	$3.93	$0.00	$0.16	$37.53
DRAWBRIDGE - SEIU LOCAL 888							
DRAWBRIDGE - SEIU LOCAL 888							
ELECTRICIAN	9/1/2024	$50.02	$12.00	$14.22	$3.50	$0.00	$79.74
ELECTRICIANS LOCAL 223	9/1/2025	$52.25	$12.25	$14.86	$3.75	$0.00	$83.11
ELECTRICIANS LOCAL 223							

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	9/1/2026	$54.72	$12.50	$15.56	$4.00	$0.00	$86.78

Apprentice: ELECTRICIAN

Effective Date: 9/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$20.01	$12.00	$0.60	$0.00	$0.00	$32.61
2	45.00	$22.51	$12.00	$0.68	$0.00	$0.00	$35.19
3	50.00	$25.01	$12.00	$0.75	$0.00	$0.00	$37.76
4	55.00	$27.51	$12.00	$6.34	$2.25	$0.00	$48.10
5	60.00	$30.01	$12.00	$6.90	$2.25	$0.00	$51.16
6	65.00	$32.51	$12.00	$7.49	$2.25	$0.00	$54.25
7	70.00	$35.01	$12.00	$8.05	$2.25	$0.00	$57.31
8	75.00	$37.52	$12.00	$8.64	$2.25	$0.00	$60.41

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

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 4 ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2022	$65.62	$16.03	$10.71	$9.50	$0.00	$101.86

Apprentice: ELEVATOR CONSTRUCTOR

Effective Date: 1/1/2022

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$32.81	$16.03	$0.00	$0.00	$0.00	$48.84
2	55.00	$36.09	$16.03	$10.71	$9.50	$0.00	$72.33
3	65.00	$42.65	$16.03	$10.71	$9.50	$0.00	$78.89
4	70.00	$45.93	$16.03	$10.71	$9.50	$0.00	$82.17
5	80.00	$52.50	$16.03	$10.71	$9.50	$0.00	$88.74

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 4 ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2022	$45.93	$16.03	$10.71	$9.50	$0.00	$82.17

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	6/1/2025	$40.59	$9.90	$9.25	$9.21	$0.00	$68.95
LABORERS	12/1/2025	$41.97	$9.90	$9.25	$9.21	$0.00	$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$43.41	$9.90	$9.25	$9.21	$0.00	$71.77
	12/1/2026	$44.85	$9.90	$9.25	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	5/1/2025	$53.22	$15.30	$13.15	$3.25	$0.00	$84.92
OPERATING ENGINEERS LOCAL 4	11/1/2025	$54.51	$15.30	$13.15	$3.25	$0.00	$86.21
OPERATING ENGINEERS LOCAL 4	5/1/2026	$55.95	$15.30	$13.15	$3.25	$0.00	$87.65
	11/1/2026	$57.24	$15.30	$13.15	$3.25	$0.00	$88.94
	5/1/2027	$58.67	$15.30	$13.15	$3.25	$0.00	$90.37
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	5/1/2025	$54.82	$15.30	$13.15	$3.25	$0.00	$86.52
OPERATING ENGINEERS LOCAL 4	11/1/2025	$56.12	$15.30	$13.15	$3.25	$0.00	$87.82
OPERATING ENGINEERS LOCAL 4	5/1/2026	$57.57	$15.30	$13.15	$3.25	$0.00	$89.27
	11/1/2026	$58.87	$15.30	$13.15	$3.25	$0.00	$90.57
	5/1/2027	$60.32	$15.30	$13.15	$3.25	$0.00	$92.02
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	5/1/2025	$26.22	$15.30	$13.15	$3.25	$0.00	$57.92
OPERATING ENGINEERS LOCAL 4	11/1/2025	$26.98	$15.30	$13.15	$3.25	$0.00	$58.68
OPERATING ENGINEERS LOCAL 4	5/1/2026	$27.83	$15.30	$13.15	$3.25	$0.00	$59.53
	11/1/2026	$28.59	$15.30	$13.15	$3.25	$0.00	$60.29
	5/1/2027	$29.44	$15.30	$13.15	$3.25	$0.00	$61.14
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIRE ALARM INSTALLER	9/1/2024	$50.02	$12.00	$14.22	$3.50	$0.00	$79.74
ELECTRICIANS LOCAL 223	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
For apprentice rates see "Apprentice- ELECTRICIAN"							
FIRE ALARM REPAIR / MAINTENANCE	9/1/2024	$50.02	$12.00	$14.22	$3.50	$0.00	$79.74
/ COMMISSIONING	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- TELECOMMUNICATIONS TECHNICIAN"							
FIREMAN (ASST. ENGINEER)	6/1/2025	$47.02	$15.55	$13.25	$3.25	$0.00	$79.07
OPERATING ENGINEERS LOCAL 4	12/1/2025	$48.19	$15.55	$13.25	$3.25	$0.00	$80.24
OPERATING ENGINEERS LOCAL 4	6/1/2026	$49.25	$15.55	$13.25	$3.25	$0.00	$81.30
	12/1/2026	$50.43	$15.55	$13.25	$3.25	$0.00	$82.48
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FLAGGER & SIGNALER (HEAVY & HIGHWAY)	6/1/2025	$28.09	$9.90	$9.25	$9.21	$0.00	$56.45
LABORERS	12/1/2025	$28.09	$9.90	$9.25	$9.21	$0.00	$56.45
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$29.21	$9.90	$9.25	$9.21	$0.00	$57.57
	12/1/2026	$29.21	$9.90	$9.25	$9.21	$0.00	$57.57
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FLOORCOVERER	3/1/2025	$57.73	$8.83	$11.47	$8.80	$0.00	$86.83

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FLOORCOVERERS LOCAL 2168	9/1/2025	$59.23	$8.83	$11.47	$8.80	$0.00	$88.33
FLOORCOVERERS LOCAL 2168 ZONE I	3/1/2026	$60.73	$8.83	$11.47	$8.80	$0.00	$89.83
	9/1/2026	$62.23	$8.83	$11.47	$8.80	$0.00	$91.33
	3/1/2027	$63.73	$8.83	$11.47	$8.80	$0.00	$92.83

Apprentice: FLOORCOVERER

Effective Date: 3/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$25.98	$8.83	$0.00	$1.76	$0.00	$36.57
2	45.00	$25.98	$8.83	$0.00	$1.76	$0.00	$36.57
3	55.00	$31.75	$8.83	$0.00	$3.52	$0.00	$44.10
4	55.00	$31.75	$8.83	$0.00	$3.52	$0.00	$44.10
5	70.00	$40.41	$8.83	$11.47	$5.28	$0.00	$65.99
6	70.00	$40.41	$8.83	$11.47	$5.28	$0.00	$65.99
7	80.00	$46.18	$8.83	$11.47	$7.04	$0.00	$73.52
8	80.00	$46.18	$8.83	$11.47	$7.04	$0.00	$73.52

Apprentice: FLOORCOVERER

Effective Date: 9/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	$26.65	$8.83	$0.00	$1.76	$0.00	$37.24
2	45.00	$26.65	$8.83	$0.00	$1.76	$0.00	$37.24
3	55.00	$32.58	$8.83	$0.00	$3.52	$0.00	$44.93
4	55.00	$32.58	$8.83	$0.00	$3.52	$0.00	$44.93
5	70.00	$41.46	$8.83	$11.47	$5.28	$0.00	$67.04
6	70.00	$41.46	$8.83	$11.47	$5.28	$0.00	$67.04
7	80.00	$47.38	$8.83	$11.47	$7.04	$0.00	$74.72
8	80.00	$47.38	$8.83	$11.47	$7.04	$0.00	$74.72

FORK LIFT/CHERRY PICKER	6/1/2025	$58.33	$15.55	$13.25	$3.25	$0.00	$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.78	$15.55	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$61.08	$15.55	$13.25	$3.25	$0.00	$93.13
	12/1/2026	$62.53	$15.55	$13.25	$3.25	$0.00	$94.58

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS	6/1/2025	$37.52	$15.55	$13.25	$3.25	$0.00	$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	$38.47	$15.55	$13.25	$3.25	$0.00	$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	$39.33	$15.55	$13.25	$3.25	$0.00	$71.38
	12/1/2026	$40.28	$15.55	$13.25	$3.25	$0.00	$72.33

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	6/1/2020	$39.18	$10.80	$6.70	$3.75	$0.00	$60.43
GLAZIERS LOCAL 1333							
GLAZIERS LOCAL 1333							

Construction

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

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

Effective Date: 6/1/2020

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$19.59	$10.80	$1.50	$0.30	$0.00	$32.19
2	56.25	$22.04	$10.80	$1.50	$0.30	$0.00	$34.64
3	62.50	$24.49	$10.80	$1.95	$0.50	$0.00	$37.74
4	68.75	$26.94	$10.80	$1.95	$0.50	$0.00	$40.19
5	75.00	$29.39	$10.80	$2.50	$0.65	$0.00	$43.34
6	81.25	$31.83	$10.80	$2.50	$0.65	$0.00	$45.78
7	87.50	$34.28	$10.80	$6.70	$3.75	$0.00	$55.53
8	93.75	$36.73	$10.80	$6.70	$3.75	$0.00	$57.98

HOISTING ENGINEER/CRANES/GRADALLS	6/1/2025	$58.33	$15.55	$13.25	$3.25	$0.00	$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.78	$15.55	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$61.08	$15.55	$13.25	$3.25	$0.00	$93.13
	12/1/2026	$62.53	$15.55	$13.25	$3.25	$0.00	$94.58

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$32.08	$0.00	$0.00	$0.00	$0.00	$32.08
2	60.00	$35.00	$15.55	$13.25	$3.25	$0.00	$67.05
3	65.00	$37.91	$15.55	$13.25	$3.25	$0.00	$69.96
4	70.00	$40.83	$15.55	$13.25	$3.25	$0.00	$72.88
5	75.00	$43.75	$15.55	$13.25	$3.25	$0.00	$75.80
6	80.00	$46.66	$15.55	$13.25	$3.25	$0.00	$78.71
7	85.00	$49.58	$15.55	$13.25	$3.25	$0.00	$81.63
8	90.00	$52.50	$15.55	$13.25	$3.25	$0.00	$84.55

Apprentice: HOISTING ENGINEER/CRANES/GRADALLS

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$32.88	$0.00	$0.00	$0.00	$0.00	$32.88
2	60.00	$35.87	$15.55	$13.25	$3.25	$0.00	$67.92
3	65.00	$38.86	$15.55	$13.25	$3.25	$0.00	$70.91
4	70.00	$41.85	$15.55	$13.25	$3.25	$0.00	$73.90
5	75.00	$44.84	$15.55	$13.25	$3.25	$0.00	$76.89
6	80.00	$47.82	$15.55	$13.25	$3.25	$0.00	$79.87
7	85.00	$50.81	$15.55	$13.25	$3.25	$0.00	$82.86
8	90.00	$53.80	$15.55	$13.25	$3.25	$0.00	$85.85

HVAC (DUCTWORK)	2/1/2025	$59.13	$14.91	$18.74	$9.53	$2.98	$105.29

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
SHEETMETAL WORKERS LOCAL 17	8/1/2025	$60.98	$14.91	$18.74	$9.53	$2.98	$107.14
SHEETMETAL WORKERS LOCAL 17 - A	2/1/2026	$62.93	$14.91	$18.74	$9.53	$2.98	$109.09
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (ELECTRICAL CONTROLS)	9/1/2024	$50.02	$12.00	$14.22	$3.50	$0.00	$79.74
ELECTRICIANS LOCAL 223	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
For apprentice rates see "Apprentice- ELECTRICIAN"							
HVAC (TESTING AND BALANCING - AIR)	2/1/2025	$59.13	$14.91	$18.74	$9.53	$2.98	$105.29
SHEETMETAL WORKERS LOCAL 17	8/1/2025	$60.98	$14.91	$18.74	$9.53	$2.98	$107.14
SHEETMETAL WORKERS LOCAL 17 - A	2/1/2026	$62.93	$14.91	$18.74	$9.53	$2.98	$109.09
For apprentice rates see "Apprentice- SHEET METAL WORKER"							
HVAC (TESTING AND BALANCING -WATER)	8/26/2024	$52.49	$10.80	$16.80	$4.60	$0.00	$84.69
PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
PLUMBERS & PIPEFITTERS LOCAL 51							
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HVAC MECHANIC	8/26/2024	$52.49	$10.80	$16.80	$4.60	$0.00	$84.69
PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
PLUMBERS & PIPEFITTERS LOCAL 51							
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
HYDRAULIC DRILLS	6/1/2025	$41.09	$9.90	$9.25	$9.11	$0.00	$69.35
LABORERS	12/1/2025	$42.47	$9.90	$9.25	$9.11	$0.00	$70.73
LABORERS - ZONE 2	6/1/2026	$43.91	$9.90	$9.25	$9.11	$0.00	$72.17
	12/1/2026	$45.35	$9.90	$9.25	$9.11	$0.00	$73.61
	6/1/2027	$46.80	$9.90	$9.25	$9.11	$0.00	$75.06
	12/1/2027	$48.25	$9.90	$9.25	$9.11	$0.00	$76.51
	6/1/2028	$49.75	$9.90	$9.25	$9.11	$0.00	$78.01
	12/1/2028	$51.25	$9.90	$9.25	$9.11	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
HYDRAULIC DRILLS (HEAVY & HIGHWAY)	6/1/2025	$41.09	$9.90	$9.25	$9.21	$0.00	$69.45
LABORERS	12/1/2025	$42.47	$9.90	$9.25	$9.21	$0.00	$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$43.91	$9.90	$9.25	$9.21	$0.00	$72.27
	12/1/2026	$45.35	$9.90	$9.25	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
INSULATOR (PIPES & TANKS)	9/1/2024	$51.23	$14.75	$9.52	$10.09	$0.00	$85.59
HEAT & FROST INSULATORS LOCAL 6	9/1/2025	$54.31	$14.75	$9.52	$10.09	$0.00	$88.67
HEAT & FROST INSULATORS LOCAL 6 (SOUTHERN MASS)	9/1/2026	$57.38	$14.75	$9.52	$10.09	$0.00	$91.74

Apprentice: INSULATOR (PIPES & TANKS)

Effective Date: 9/1/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.62	$14.75	$9.27	$5.05	$0.00	$54.69
2	60.00	$30.74	$14.75	$9.32	$6.05	$0.00	$60.86

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: INSULATOR (PIPES & TANKS)							
Effective Date: 9/1/2024							
Step 3 – 70.00 – Apprentice Base Wage		$35.86	$14.75	$9.37	$7.06	$0.00	$67.04
Step 4 – 80.00		$40.98	$14.75	$9.42	$8.07	$0.00	$73.22
Apprentice: INSULATOR (PIPES & TANKS)							
Effective Date: 9/1/2025							
Step 1 – 50.00 – Apprentice Base Wage		$27.16	$14.75	$9.27	$5.05	$0.00	$56.23
Step 2 – 60.00		$32.59	$14.75	$9.32	$6.05	$0.00	$62.71
Step 3 – 70.00		$38.02	$14.75	$9.37	$7.06	$0.00	$69.20
Step 4 – 80.00		$43.45	$14.75	$9.42	$8.07	$0.00	$75.69
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 1 – 70.00 – Apprentice Base Wage		$29.72	$7.70	$12.10	$5.00	$0.00	$54.52
Step 2 – 75.00		$31.85	$7.70	$12.10	$5.00	$0.00	$56.65
Step 3 – 80.00		$33.97	$7.70	$12.10	$5.00	$0.00	$58.77
Step 4 – 85.00		$36.09	$7.70	$12.10	$5.00	$0.00	$60.89
Step 5 – 90.00		$38.21	$7.70	$12.10	$5.00	$0.00	$63.01
Step 6 – 95.00		$40.34	$7.70	$12.10	$5.00	$0.00	$65.14
JACKHAMMER & PAVING BREAKER OPERATOR LABORERS LABORERS - ZONE 2	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER LABORERS LABORERS - ZONE 2	6/1/2025	$40.34	$9.90	$9.25	$9.11	$0.00	$68.60
	12/1/2025	$41.72	$9.90	$9.25	$9.11	$0.00	$69.98
	6/1/2026	$43.16	$9.90	$9.25	$9.11	$0.00	$71.42
	12/1/2026	$44.60	$9.90	$9.25	$9.11	$0.00	$72.86
	6/1/2027	$46.05	$9.90	$9.25	$9.11	$0.00	$74.31

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2027	$47.50	$9.90	$9.25	$9.11	$0.00	$75.76
	6/1/2028	$49.00	$9.90	$9.25	$9.11	$0.00	$77.26
	12/1/2028	$50.50	$9.90	$9.25	$9.11	$0.00	$78.76

Apprentice: LABORER

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$24.20	$9.90	$9.25	$9.11	$0.00	$52.46
2	70.00	$28.24	$9.90	$9.25	$9.11	$0.00	$56.50
3	80.00	$32.27	$9.90	$9.25	$9.11	$0.00	$60.53
4	90.00	$36.31	$9.90	$9.25	$9.11	$0.00	$64.57

Apprentice: LABORER

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.03	$9.90	$9.25	$9.11	$0.00	$53.29
2	70.00	$29.20	$9.90	$9.25	$9.11	$0.00	$57.46
3	80.00	$33.38	$9.90	$9.25	$9.11	$0.00	$61.64
4	90.00	$37.55	$9.90	$9.25	$9.11	$0.00	$65.81

LABORER (HEAVY & HIGHWAY)	6/1/2025	$40.34	$9.90	$9.25	$9.21	$0.00	$68.70
LABORERS	12/1/2025	$41.72	$9.90	$9.25	$9.21	$0.00	$70.08
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$43.16	$9.90	$9.25	$9.21	$0.00	$71.52
	12/1/2026	$44.60	$9.90	$9.25	$9.21	$0.00	$72.96

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 6/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$24.20	$9.90	$9.25	$9.21	$0.00	$52.56
2	70.00	$28.24	$9.90	$9.25	$9.21	$0.00	$56.60
3	80.00	$32.27	$9.90	$9.25	$9.21	$0.00	$60.63
4	90.00	$36.31	$9.90	$9.25	$9.21	$0.00	$64.67

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	$25.03	$9.90	$9.25	$9.21	$0.00	$53.39
2	70.00	$29.20	$9.90	$9.25	$9.21	$0.00	$57.56
3	80.00	$33.38	$9.90	$9.25	$9.21	$0.00	$61.74
4	90.00	$37.55	$9.90	$9.25	$9.21	$0.00	$65.91

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER LABORERS LABORERS - ZONE 2	6/1/2025	$40.34	$9.90	$9.25	$9.11	$0.00	$68.60
	12/1/2025	$41.72	$9.90	$9.25	$9.11	$0.00	$69.98
	6/1/2026	$43.16	$9.90	$9.25	$9.11	$0.00	$71.42
	12/1/2026	$44.60	$9.90	$9.25	$9.11	$0.00	$72.86
	6/1/2027	$46.05	$9.90	$9.25	$9.11	$0.00	$74.31
	12/1/2027	$47.50	$9.90	$9.25	$9.11	$0.00	$75.76
	6/1/2028	$49.00	$9.90	$9.25	$9.11	$0.00	$77.26
	12/1/2028	$50.50	$9.90	$9.25	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: CEMENT FINISHER TENDER LABORERS LABORERS - ZONE 2	6/1/2025	$40.34	$9.90	$9.25	$9.11	$0.00	$68.60
	12/1/2025	$41.72	$9.90	$9.25	$9.11	$0.00	$69.98
	6/1/2026	$43.16	$9.90	$9.25	$9.11	$0.00	$71.42
	12/1/2026	$44.60	$9.90	$9.25	$9.11	$0.00	$72.86
	6/1/2027	$46.05	$9.90	$9.25	$9.11	$0.00	$74.31
	12/1/2027	$47.50	$9.90	$9.25	$9.11	$0.00	$75.76
	6/1/2028	$49.00	$9.90	$9.25	$9.11	$0.00	$77.26
	12/1/2028	$50.50	$9.90	$9.25	$9.11	$0.00	$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER LABORERS LABORERS - ZONE 2	6/2/2025	$40.43	$9.90	$9.25	$9.17	$0.00	$68.75
	12/1/2025	$41.81	$9.90	$9.25	$9.17	$0.00	$70.13
	6/1/2026	$43.25	$9.90	$9.25	$9.17	$0.00	$71.57
	12/7/2026	$44.69	$9.90	$9.25	$9.17	$0.00	$73.01
	6/7/2027	$46.14	$9.90	$9.25	$9.17	$0.00	$74.46
	12/6/2027	$47.59	$9.90	$9.25	$9.17	$0.00	$75.91
	6/5/2028	$49.09	$9.90	$9.25	$9.17	$0.00	$77.41
	12/4/2028	$50.59	$9.90	$9.25	$9.17	$0.00	$78.91
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER LABORERS LABORERS - ZONE 2	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$40.59	$9.90	$9.25	$9.21	$0.00	$68.95
	12/1/2025	$41.97	$9.90	$9.25	$9.21	$0.00	$70.33
	6/1/2026	$43.41	$9.90	$9.25	$9.21	$0.00	$71.77
	12/1/2026	$44.85	$9.90	$9.25	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
LABORER: MULTI-TRADE TENDER LABORERS LABORERS - ZONE 2	6/1/2025	$40.34	$9.90	$9.25	$9.11	$0.00	$68.60
	12/1/2025	$41.72	$9.90	$9.25	$9.11	$0.00	$69.98
	6/1/2026	$43.16	$9.90	$9.25	$9.11	$0.00	$71.42
	12/1/2026	$44.60	$9.90	$9.25	$9.11	$0.00	$72.86

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2027	$46.05	$9.90	$9.25	$9.11	$0.00	$74.31
	12/1/2027	$47.50	$9.90	$9.25	$9.11	$0.00	$75.76
	6/1/2028	$49.00	$9.90	$9.25	$9.11	$0.00	$77.26
	12/1/2028	$50.50	$9.90	$9.25	$9.11	$0.00	$78.76

For apprentice rates see "Apprentice- LABORER"

LABORER: TREE REMOVER LABORERS LABORERS - ZONE 2	6/1/2025	$40.34	$9.90	$9.25	$9.11	$0.00	$68.60
	12/1/2025	$41.72	$9.90	$9.25	$9.11	$0.00	$69.98
	6/1/2026	$43.16	$9.90	$9.25	$9.11	$0.00	$71.42
	12/1/2026	$44.60	$9.90	$9.25	$9.11	$0.00	$72.86
	6/1/2027	$46.05	$9.90	$9.25	$9.11	$0.00	$74.31
	12/1/2027	$47.50	$9.90	$9.25	$9.11	$0.00	$75.76
	6/1/2028	$49.00	$9.90	$9.25	$9.11	$0.00	$77.26
	12/1/2028	$50.50	$9.90	$9.25	$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"

LASER BEAM OPERATOR LABORERS LABORERS - ZONE 2	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01

For apprentice rates see "Apprentice- LABORER"

LASER BEAM OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$40.59	$9.90	$9.25	$9.21	$0.00	$68.95
	12/1/2025	$41.97	$9.90	$9.25	$9.21	$0.00	$70.33
	6/1/2026	$43.41	$9.90	$9.25	$9.21	$0.00	$71.77
	12/1/2026	$44.85	$9.90	$9.25	$9.21	$0.00	$73.21

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

MARBLE & TILE FINISHERS BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2025	$50.36	$11.49	$15.57	$6.05	$0.00	$83.47
	8/1/2025	$52.08	$11.49	$15.57	$6.05	$0.00	$85.19
	2/1/2026	$53.16	$11.49	$15.57	$6.05	$0.00	$86.27
	8/1/2026	$54.92	$11.49	$15.57	$6.05	$0.00	$88.03
	2/1/2027	$56.04	$11.49	$15.57	$6.05	$0.00	$89.15

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 2/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$25.18	$11.49	$15.57	$6.05	$0.00	$58.29
2	60.00	$30.22	$11.49	$15.57	$6.05	$0.00	$63.33
3	70.00	$35.25	$11.49	$15.57	$6.05	$0.00	$68.36
4	80.00	$40.29	$11.49	$15.57	$6.05	$0.00	$73.40
5	90.00	$45.32	$11.49	$15.57	$6.05	$0.00	$78.43

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
MARBLE MASONS,TILELAYERS & TERRAZZO MECH BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2025	$65.82	$11.49	$15.57	$7.99	$0.00	$100.87
	8/1/2025	$67.97	$11.49	$15.57	$7.99	$0.00	$103.02
	2/1/2026	$69.32	$11.49	$15.57	$7.99	$0.00	$104.37
	8/1/2026	$71.52	$11.49	$15.57	$7.99	$0.00	$106.57
	2/1/2027	$72.92	$11.49	$15.57	$7.99	$0.00	$107.97

Apprentice: MARBLE & TILE FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.04	$11.49	$15.57	$6.05	$0.00	$59.15
2	60.00	$31.25	$11.49	$15.57	$6.05	$0.00	$64.36
3	70.00	$36.46	$11.49	$15.57	$6.05	$0.00	$69.57
4	80.00	$41.66	$11.49	$15.57	$6.05	$0.00	$74.77
5	90.00	$46.87	$11.49	$15.57	$6.05	$0.00	$79.98

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 2/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$32.91	$11.49	$15.57	$7.99	$0.00	$67.96
2	60.00	$39.49	$11.49	$15.57	$7.99	$0.00	$74.54
3	70.00	$46.07	$11.49	$15.57	$7.99	$0.00	$81.12
4	80.00	$52.66	$11.49	$15.57	$7.99	$0.00	$87.71
5	90.00	$59.24	$11.49	$15.57	$7.99	$0.00	$94.29

Apprentice: MARBLE MASONS,TILELAYERS & TERRAZZO MECH

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.99	$11.49	$15.57	$7.99	$0.00	$69.04
2	60.00	$40.78	$11.49	$15.57	$7.99	$0.00	$75.83
3	70.00	$47.58	$11.49	$15.57	$7.99	$0.00	$82.63
4	80.00	$54.38	$11.49	$15.57	$7.99	$0.00	$89.43
5	90.00	$61.17	$11.49	$15.57	$7.99	$0.00	$96.22

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
MILLWRIGHT (Zone 2)	1/6/2025	$45.09	$10.08	$11.47	$10.00	$0.00	$76.64
MILLWRIGHTS LOCAL 1121 MILLWRIGHTS LOCAL 1121 - Zone 2	1/5/2026	$47.42	$10.08	$11.47	$10.00	$0.00	$78.97

Apprentice: MILLWRIGHT (Zone 2)

Effective Date: 1/6/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$24.80	$10.08	$0.00	$5.50	$0.00	$40.38
2	65.00	$29.31	$10.08	$0.00	$6.50	$0.00	$45.89
3	75.00	$33.82	$10.08	$11.47	$7.50	$0.00	$62.87
4	85.00	$38.33	$10.08	$11.47	$8.50	$0.00	$68.38

Apprentice: MILLWRIGHT (Zone 2)

Effective Date: 1/5/2026

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	$26.08	$10.08	$0.00	$5.50	$0.00	$41.66
2	65.00	$30.82	$10.08	$0.00	$6.50	$0.00	$47.40
3	75.00	$35.57	$10.08	$11.47	$7.50	$0.00	$64.62
4	85.00	$40.31	$10.08	$11.47	$8.50	$0.00	$70.36

MORTAR MIXER	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
LABORERS LABORERS - ZONE 2	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	6/1/2025	$25.97	$15.30	$13.15	$3.25	$0.00	$57.67
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$26.63	$15.30	$13.15	$3.25	$0.00	$58.33
	6/1/2026	$27.22	$15.30	$13.15	$3.25	$0.00	$58.92
	12/1/2026	$27.89	$15.30	$13.15	$3.25	$0.00	$59.59
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OILER (TRUCK CRANES, GRADALLS)	6/1/2025	$31.80	$15.30	$13.15	$3.25	$0.00	$63.50
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	$32.60	$15.30	$13.15	$3.25	$0.00	$64.30
	6/1/2026	$33.32	$15.30	$13.15	$3.25	$0.00	$65.02
	12/1/2026	$34.12	$15.30	$13.15	$3.25	$0.00	$65.82
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OTHER POWER DRIVEN EQUIPMENT - CLASS II	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2025	$58.46	$9.95	$11.85	$12.10	$0.00	$92.36

Apprentice: PAINTER (BRIDGES/TANKS)

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$29.23	$9.95	$0.00	$0.00	$0.00	$39.18
2	55.00	$32.15	$9.95	$0.00	$6.66	$0.00	$48.76
3	60.00	$35.08	$9.95	$0.00	$7.26	$0.00	$52.29
4	65.00	$38.00	$9.95	$0.00	$7.87	$0.00	$55.82
5	70.00	$40.92	$9.95	$11.85	$8.47	$0.00	$71.19
6	75.00	$43.85	$9.95	$11.85	$9.08	$0.00	$74.73
7	80.00	$46.77	$9.95	$11.85	$9.68	$0.00	$78.25
8	90.00	$52.61	$9.95	$11.85	$10.89	$0.00	$85.30

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	1/1/2025	$49.36	$9.95	$11.85	$12.10	$0.00	$83.26

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$24.68	$9.95	$0.00	$0.00	$0.00	$34.63
2	55.00	$27.15	$9.95	$0.00	$6.66	$0.00	$43.76
3	60.00	$29.62	$9.95	$0.00	$7.26	$0.00	$46.83
4	65.00	$32.08	$9.95	$0.00	$7.87	$0.00	$49.90
5	70.00	$34.55	$9.95	$11.85	$8.47	$0.00	$64.82
6	75.00	$37.02	$9.95	$11.85	$9.08	$0.00	$67.90
7	80.00	$39.49	$9.95	$11.85	$9.68	$0.00	$70.97
8	90.00	$44.42	$9.95	$11.85	$10.89	$0.00	$77.11

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2025	$47.42	$9.95	$11.85	$12.10	$0.00	$81.32

Construction

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

Apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.71	$9.95	$0.00	$0.00	$0.00	$33.66
2	55.00	$26.08	$9.95	$0.00	$6.66	$0.00	$42.69
3	60.00	$28.45	$9.95	$0.00	$7.26	$0.00	$45.66
4	65.00	$30.82	$9.95	$0.00	$7.87	$0.00	$48.64
5	70.00	$33.19	$9.95	$11.85	$8.47	$0.00	$63.46
6	75.00	$35.57	$9.95	$11.85	$9.08	$0.00	$66.45
7	80.00	$37.94	$9.95	$11.85	$9.68	$0.00	$69.42
8	90.00	$42.68	$9.95	$11.85	$10.89	$0.00	$75.37

PAINTER / TAPER (BRUSH, NEW) * 1/1/2025 $47.96 $9.95 $11.85 $12.10 $0.00 $81.86
* 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

Apprentice: PAINTER / TAPER (BRUSH, NEW) *

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.98	$9.95	$0.00	$0.00	$0.00	$33.93
2	55.00	$26.38	$9.95	$0.00	$6.66	$0.00	$42.99
3	60.00	$28.78	$9.95	$0.00	$7.26	$0.00	$45.99
4	65.00	$31.17	$9.95	$0.00	$7.87	$0.00	$48.99
5	70.00	$33.57	$9.95	$11.85	$8.47	$0.00	$63.84
6	75.00	$35.97	$9.95	$11.85	$9.08	$0.00	$66.85
7	80.00	$38.37	$9.95	$11.85	$9.68	$0.00	$69.85
8	90.00	$43.16	$9.95	$11.85	$10.89	$0.00	$75.85

PAINTER / TAPER (BRUSH, REPAINT) 1/1/2025 $46.02 $9.95 $11.85 $12.10 $0.00 $79.92
PAINTERS LOCAL 35
PAINTERS LOCAL 35 - ZONE 2

Apprentice: PAINTER / TAPER (BRUSH, REPAINT)

Effective Date: 1/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$23.01	$9.95	$0.00	$0.00	$0.00	$32.96
2	55.00	$25.31	$9.95	$0.00	$6.66	$0.00	$41.92
3	60.00	$27.61	$9.95	$0.00	$7.26	$0.00	$44.82
4	65.00	$29.91	$9.95	$0.00	$7.87	$0.00	$47.73
5	70.00	$32.21	$9.95	$11.85	$8.47	$0.00	$62.48
6	75.00	$34.52	$9.95	$11.85	$9.08	$0.00	$65.40

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: PAINTER / TAPER (BRUSH, REPAINT)							
Effective Date: 1/1/2025							
Step / Percent		**Apprentice Base Wage**					
7 / 80.00		$36.82	$9.95	$11.85	$9.68	$0.00	$68.30
8 / 90.00		$41.42	$9.95	$11.85	$10.89	$0.00	$74.11
PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$40.34	$9.90	$9.25	$9.21	$0.00	$68.70
	12/1/2025	$41.72	$9.90	$9.25	$9.21	$0.00	$70.08
	6/1/2026	$43.16	$9.90	$9.25	$9.21	$0.00	$71.52
	12/1/2026	$44.60	$9.90	$9.25	$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	6/1/2025	$40.78	$15.57	$20.17	$0.00	$0.00	$76.52
	12/1/2025	$40.78	$15.57	$21.78	$0.00	$0.00	$78.13
	1/1/2026	$40.78	$16.17	$21.78	$0.00	$0.00	$78.73
	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 1)	8/1/2024	$55.79	$10.08	$11.62	$12.67	$0.00	$90.16
For apprentice rates see "Apprentice- PILE DRIVER"							
PILE DRIVER PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	8/1/2024	$55.79	$10.08	$11.62	$12.67	$0.00	$90.16
Apprentice: PILE DRIVER							
Effective Date: 8/1/2024							
Step / Percent		**Apprentice Base Wage**					
1 / 45.00		$25.11	$10.08	$0.00	$2.53	$0.00	$37.72
2 / 55.00		$30.68	$10.08	$0.00	$5.07	$0.00	$45.83
3 / 70.00		$39.05	$10.08	$11.62	$7.60	$0.00	$68.35
4 / 80.00		$44.63	$10.08	$11.62	$10.14	$0.00	$76.47
PIPELAYER LABORERS LABORERS - ZONE 2	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$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
PIPELAYER (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$40.59	$9.90	$9.25	$9.21	$0.00	$68.95
	12/1/2025	$41.97	$9.90	$9.25	$9.21	$0.00	$70.33
	6/1/2026	$43.41	$9.90	$9.25	$9.21	$0.00	$71.77
	12/1/2026	$44.85	$9.90	$9.25	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
PLUMBER & PIPEFITTER PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/26/2024	$52.49	$10.80	$16.80	$4.60	$0.00	$84.69
	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 8/26/2024

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	$21.00	$10.15	$2.50	$0.00	$0.00	$33.65
2	50.00	$26.25	$10.15	$2.50	$0.00	$0.00	$38.90
3	60.00	$31.49	$10.15	$8.40	$0.50	$0.00	$50.54
4	70.00	$36.74	$10.15	$13.44	$0.80	$0.00	$61.13
5	80.00	$41.99	$10.15	$16.80	$1.00	$0.00	$69.94

Apprentice: PLUMBER & PIPEFITTER

Effective Date: 8/25/2025

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

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/26/2024	$52.49	$10.80	$16.80	$4.60	$0.00	$84.69
	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"							
PNEUMATIC DRILL/TOOL OPERATOR LABORERS LABORERS - ZONE 2	6/1/2025	$41.09	$9.90	$9.25	$8.29	$0.00	$68.53
	12/1/2025	$42.47	$9.90	$9.25	$8.29	$0.00	$69.91
	6/1/2026	$43.91	$9.90	$9.25	$8.29	$0.00	$71.35
	12/1/2026	$45.35	$9.90	$9.25	$8.29	$0.00	$72.79
	6/1/2027	$46.80	$9.90	$9.25	$8.29	$0.00	$74.24
	12/1/2027	$48.25	$9.90	$9.25	$8.29	$0.00	$75.69
	6/1/2028	$49.75	$9.90	$9.25	$8.29	$0.00	$77.19
	12/1/2028	$51.25	$9.90	$9.25	$8.29	$0.00	$78.69
For apprentice rates see "Apprentice- LABORER"							
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2025	$40.59	$9.90	$9.25	$9.21	$0.00	$68.95
	12/1/2025	$41.97	$9.90	$9.25	$9.21	$0.00	$70.33
	6/1/2026	$43.41	$9.90	$9.25	$9.21	$0.00	$71.77

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	12/1/2026	$44.85	$9.90	$9.25	$9.21	$0.00	$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWDERMAN & BLASTER	6/1/2025	$41.34	$9.90	$9.25	$9.11	$0.00	$69.60
LABORERS	12/1/2025	$42.72	$9.90	$9.25	$9.11	$0.00	$70.98
LABORERS - ZONE 2	6/1/2026	$44.16	$9.90	$9.25	$9.11	$0.00	$72.42
	12/1/2026	$45.60	$9.90	$9.25	$9.11	$0.00	$73.86
	6/1/2027	$47.05	$9.90	$9.25	$9.11	$0.00	$75.31
	12/1/2027	$48.50	$9.90	$9.25	$9.11	$0.00	$76.76
	6/1/2028	$50.00	$9.90	$9.25	$9.11	$0.00	$78.26
	12/1/2028	$51.50	$9.90	$9.25	$9.11	$0.00	$79.76
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	$41.34	$9.65	$9.25	$9.21	$0.00	$69.45
LABORERS	12/1/2025	$42.72	$9.65	$9.25	$9.21	$0.00	$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$44.16	$9.65	$9.25	$9.21	$0.00	$72.27
	12/1/2026	$45.60	$9.65	$9.25	$9.21	$0.00	$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
POWER SHOVEL/DERRICK/TRENCHING MACHINE	6/1/2025	$58.33	$15.55	$13.25	$3.25	$0.00	$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.78	$15.55	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$61.08	$15.55	$13.25	$3.25	$0.00	$93.13
	12/1/2026	$62.53	$15.55	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (CONCRETE)	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (DEWATERING, OTHER)	6/1/2025	$37.52	$15.55	$13.25	$3.25	$0.00	$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	$38.47	$15.55	$13.25	$3.25	$0.00	$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	$39.33	$15.55	$13.25	$3.25	$0.00	$71.38
	12/1/2026	$40.28	$15.55	$13.25	$3.25	$0.00	$72.33
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	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
RIDE-ON MOTORIZED BUGGY OPERATOR	6/1/2025	$40.59	$9.90	$9.25	$9.11	$0.00	$68.85
LABORERS	12/1/2025	$41.97	$9.90	$9.25	$9.11	$0.00	$70.23
LABORERS - ZONE 2	6/1/2026	$43.41	$9.90	$9.25	$9.11	$0.00	$71.67
	12/1/2026	$44.85	$9.90	$9.25	$9.11	$0.00	$73.11

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	6/1/2027	$46.30	$9.90	$9.25	$9.11	$0.00	$74.56
	12/1/2027	$47.75	$9.90	$9.25	$9.11	$0.00	$76.01
	6/1/2028	$49.25	$9.90	$9.25	$9.11	$0.00	$77.51
	12/1/2028	$50.75	$9.90	$9.25	$9.11	$0.00	$79.01
For apprentice rates see "Apprentice- LABORER"							
ROLLER/SPREADER/MULCHING MACHINE	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)	2/1/2025	$52.03	$13.28	$12.67	$9.03	$0.00	$87.01
ROOFERS LOCAL 33	8/1/2025	$53.53	$13.28	$12.67	$9.03	$0.00	$88.51
ROOFERS LOCAL 33	2/1/2026	$54.78	$13.28	$12.67	$9.03	$0.00	$89.76

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

Effective Date: 2/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.02	$13.28	$6.52	$9.03	$0.00	$54.85
2	60.00	$31.22	$13.28	$12.67	$9.03	$0.00	$66.20
3	65.00	$33.82	$13.28	$12.67	$9.03	$0.00	$68.80
4	75.00	$39.02	$13.28	$12.67	$9.03	$0.00	$74.00
5	85.00	$44.23	$13.28	$12.67	$9.03	$0.00	$79.21

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

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$26.77	$13.28	$6.52	$9.03	$0.00	$55.60
2	60.00	$32.12	$13.28	$12.67	$9.03	$0.00	$67.10
3	65.00	$34.79	$13.28	$12.67	$9.03	$0.00	$69.77
4	75.00	$40.15	$13.28	$12.67	$9.03	$0.00	$75.13
5	85.00	$45.50	$13.28	$12.67	$9.03	$0.00	$80.48

ROOFER SLATE / TILE / PRECAST CONCRETE	2/1/2025	$52.28	$13.28	$12.67	$9.03	$0.00	$87.26
ROOFERS LOCAL 33	8/1/2025	$53.78	$13.28	$12.67	$9.03	$0.00	$88.76
ROOFERS LOCAL 33	2/1/2026	$55.03	$13.28	$12.67	$9.03	$0.00	$90.01
For apprentice rates see "Apprentice- ROOFER"							
SHEETMETAL WORKER	2/1/2025	$59.13	$14.91	$18.74	$9.53	$2.98	$105.29
SHEETMETAL WORKERS LOCAL 17	8/1/2025	$60.98	$14.91	$18.74	$9.53	$2.98	$107.14
SHEETMETAL WORKERS LOCAL 17 - A	2/1/2026	$62.93	$14.91	$18.74	$9.53	$2.98	$109.09

Construction

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

Apprentice: SHEETMETAL WORKER

Effective Date: 2/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	42.00	$24.83	$14.91	$6.13	$0.00	$0.00	$45.87
2	42.00	$24.83	$14.91	$6.13	$0.00	$0.00	$45.87
3	47.00	$27.79	$14.91	$11.01	$1.25	$1.62	$56.58
4	47.00	$27.79	$14.91	$11.01	$1.25	$1.62	$56.58
5	52.00	$30.75	$14.91	$11.74	$1.50	$1.74	$60.64
6	52.00	$30.75	$14.91	$11.74	$1.75	$1.75	$60.90
7	60.00	$35.48	$14.91	$12.90	$2.00	$1.93	$67.22
8	65.00	$38.43	$14.91	$13.63	$2.25	$2.04	$71.26
9	75.00	$44.35	$14.91	$15.09	$2.75	$2.28	$79.38
10	85.00	$50.26	$14.91	$16.55	$2.75	$2.49	$86.96

Apprentice: SHEETMETAL WORKER

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	42.00	$25.61	$14.91	$6.13	$0.00	$0.00	$46.65
2	42.00	$25.61	$14.91	$6.13	$0.00	$0.00	$46.65
3	47.00	$28.66	$14.91	$11.01	$1.25	$1.62	$57.45
4	47.00	$28.66	$14.91	$11.01	$1.25	$1.62	$57.45
5	52.00	$31.71	$14.91	$11.74	$1.50	$1.74	$61.60
6	52.00	$31.71	$14.91	$11.74	$1.75	$1.75	$61.86
7	60.00	$36.59	$14.91	$12.90	$2.00	$1.93	$68.33
8	65.00	$39.64	$14.91	$13.63	$2.25	$2.04	$72.47
9	75.00	$45.74	$14.91	$15.09	$2.75	$2.28	$80.77
10	85.00	$51.83	$14.91	$16.55	$2.75	$2.49	$88.53

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	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	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	6/1/2025	$41.53	$15.57	$20.17	$0.00	$0.00	$77.27
	12/1/2025	$41.53	$15.57	$21.78	$0.00	$0.00	$78.88
	1/1/2026	$41.53	$16.17	$21.78	$0.00	$0.00	$79.48
	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 A) Zone 1	3/1/2025	$72.14	$11.51	$7.30	$16.50	$0.00	$107.45

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice: SPRINKLER FITTER							
Effective Date: 3/1/2025							
Step / Percent		**Apprentice Base Wage**					
1 / 35.00		$25.25	$11.51	$13.07	$0.00	$0.00	$49.83
2 / 40.00		$28.86	$11.51	$13.90	$0.00	$0.00	$54.27
3 / 45.00		$32.46	$11.51	$14.73	$0.00	$0.00	$58.70
4 / 50.00		$36.07	$11.51	$15.55	$0.00	$0.00	$63.13
5 / 55.00		$39.68	$11.51	$16.37	$0.00	$0.00	$67.56
6 / 60.00		$43.28	$11.51	$17.20	$0.00	$0.00	$71.99
7 / 65.00		$46.89	$11.51	$18.03	$0.00	$0.00	$76.43
8 / 70.00		$50.50	$11.51	$18.85	$0.00	$0.00	$80.86
9 / 75.00		$54.11	$11.51	$19.67	$0.00	$0.00	$85.29
10 / 80.00		$57.71	$11.51	$20.50	$0.00	$0.00	$89.72
STEAM BOILER OPERATOR	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TELECOMMUNICATION TECHNICIAN	9/1/2024	$40.69	$11.75	$11.53	$3.00	$0.00	$66.97
ELECTRICIANS LOCAL 223	9/1/2025	$42.52	$12.00	$12.05	$3.25	$0.00	$69.82
ELECTRICIANS LOCAL 223	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
Apprentice: TELECOMMUNICATION TECHNICIAN							
Effective Date: 9/1/2024							
Step / Percent		**Apprentice Base Wage**					
1 / 0.00		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TERRAZZO FINISHERS	2/1/2025	$64.74	$11.49	$15.57	$8.02	$0.00	$99.82
BRICKLAYERS LOCAL 3	8/1/2025	$66.89	$11.49	$15.57	$8.02	$0.00	$101.97
BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	$68.24	$11.49	$15.57	$8.02	$0.00	$103.32
	8/1/2026	$70.44	$11.49	$15.57	$8.02	$0.00	$105.52
	2/1/2027	$71.84	$11.49	$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: 2/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$32.37	$11.49	$15.57	$8.02	$0.00	$67.45
2	60.00	$38.84	$11.49	$15.57	$8.02	$0.00	$73.92
3	70.00	$45.32	$11.49	$15.57	$8.02	$0.00	$80.40
4	80.00	$51.79	$11.49	$15.57	$8.02	$0.00	$86.87
5	90.00	$58.27	$11.49	$15.57	$8.02	$0.00	$93.35

Apprentice: TERRAZZO FINISHERS

Effective Date: 8/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	$33.45	$11.49	$15.57	$8.02	$0.00	$68.53
2	60.00	$40.13	$11.49	$15.57	$8.02	$0.00	$75.21
3	70.00	$46.82	$11.49	$15.57	$8.02	$0.00	$81.90
4	80.00	$53.51	$11.49	$15.57	$8.02	$0.00	$88.59
5	90.00	$60.20	$11.49	$15.57	$8.02	$0.00	$95.28

TEST BORING DRILLER	6/1/2025	$51.70	$9.90	$9.25	$9.80	$0.00	$80.65
LABORERS	12/1/2025	$53.20	$9.90	$9.25	$9.80	$0.00	$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$54.75	$9.90	$9.25	$9.80	$0.00	$83.70
	12/1/2026	$56.25	$9.90	$9.25	$9.80	$0.00	$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2025	$47.82	$9.90	$9.25	$9.80	$0.00	$76.77
LABORERS	12/1/2025	$49.32	$9.90	$9.25	$9.80	$0.00	$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.87	$9.90	$9.25	$9.80	$0.00	$79.82
	12/1/2026	$52.37	$9.90	$9.25	$9.80	$0.00	$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	$47.70	$9.90	$9.25	$9.80	$0.00	$76.65
LABORERS	12/1/2025	$49.20	$9.90	$9.25	$9.80	$0.00	$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	$50.75	$9.90	$9.25	$9.80	$0.00	$79.70
	12/1/2026	$52.25	$9.90	$9.25	$9.80	$0.00	$81.20
For apprentice rates see "Apprentice- LABORER"							
TRACTORS/PORTABLE STEAM GENERATORS	6/1/2025	$57.68	$15.55	$13.25	$3.25	$0.00	$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.12	$15.55	$13.25	$3.25	$0.00	$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	$60.40	$15.55	$13.25	$3.25	$0.00	$92.45
	12/1/2026	$61.84	$15.55	$13.25	$3.25	$0.00	$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TRAILERS FOR EARTH MOVING EQUIPMENT	6/1/2025	$41.82	$15.57	$20.17	$0.00	$0.00	$77.56
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.82	$15.57	$21.78	$0.00	$0.00	$79.17

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.82	$16.17	$21.78	$0.00	$0.00	$79.77
	6/1/2026	$42.82	$16.17	$21.78	$0.00	$0.00	$80.77
	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	6/1/2025	$59.93	$9.90	$9.25	$10.25	$0.00	$89.33
LABORERS	12/1/2025	$61.43	$9.90	$9.25	$10.25	$0.00	$90.83
LABORERS (COMPRESSED AIR)	6/1/2026	$62.98	$9.90	$9.25	$10.25	$0.00	$92.38
	12/1/2026	$64.48	$9.90	$9.25	$10.25	$0.00	$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	$61.93	$9.90	$9.25	$10.25	$0.00	$91.33
LABORERS	12/1/2025	$63.43	$9.90	$9.25	$10.25	$0.00	$92.83
LABORERS (COMPRESSED AIR)	6/1/2026	$64.98	$9.90	$9.25	$10.25	$0.00	$94.38
	12/1/2026	$66.48	$9.90	$9.25	$10.25	$0.00	$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	$52.00	$9.90	$9.25	$10.25	$0.00	$81.40
LABORERS	12/1/2025	$53.50	$9.90	$9.25	$10.25	$0.00	$82.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$55.05	$9.90	$9.25	$10.25	$0.00	$84.45
	12/1/2026	$56.55	$9.90	$9.25	$10.25	$0.00	$85.95
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR (HAZ. WASTE)	6/1/2025	$54.00	$9.90	$9.25	$10.25	$0.00	$83.40
LABORERS	12/1/2025	$55.50	$9.90	$9.25	$10.25	$0.00	$84.90
LABORERS (FREE AIR TUNNEL)	6/1/2026	$57.05	$9.90	$9.25	$10.25	$0.00	$86.45
	12/1/2026	$58.55	$9.90	$9.25	$10.25	$0.00	$87.95
For apprentice rates see "Apprentice- LABORER"							
VAC-HAUL	6/1/2025	$41.24	$15.57	$20.17	$0.00	$0.00	$76.98
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	$41.24	$15.57	$21.78	$0.00	$0.00	$78.59
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	1/1/2026	$41.24	$16.17	$21.78	$0.00	$0.00	$79.19
	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
WAGON DRILL OPERATOR	6/1/2025	$42.00	$9.65	$9.00	$8.70	$0.00	$69.35
LABORERS	12/1/2025	$43.38	$9.65	$9.00	$8.70	$0.00	$70.73
LABORERS - ZONE 2	6/1/2026	$44.82	$9.65	$9.00	$8.70	$0.00	$72.17
	12/1/2026	$46.26	$9.65	$9.00	$8.70	$0.00	$73.61
	6/1/2027	$47.71	$9.65	$9.00	$8.70	$0.00	$75.06
	12/1/2027	$49.16	$9.65	$9.00	$8.70	$0.00	$76.51
	6/1/2028	$50.66	$9.65	$9.00	$8.70	$0.00	$78.01
	12/1/2028	$52.16	$9.65	$9.00	$8.70	$0.00	$79.51
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	$40.59	$9.90	$9.25	$9.21	$0.00	$68.95
LABORERS	12/1/2025	$41.97	$9.90	$9.25	$9.21	$0.00	$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	$43.41	$9.90	$9.25	$9.21	$0.00	$71.77
	12/1/2026	$44.85	$9.90	$9.25	$9.21	$0.00	$73.21

Construction

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
WASTE WATER PUMP OPERATOR	6/1/2025	$58.33	$15.55	$13.25	$3.25	$0.00	$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	$59.78	$15.55	$13.25	$3.25	$0.00	$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	$61.08	$15.55	$13.25	$3.25	$0.00	$93.13
	12/1/2026	$62.53	$15.55	$13.25	$3.25	$0.00	$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
WATER METER INSTALLER	8/26/2024	$52.49	$10.80	$16.80	$4.60	$0.00	$84.69
PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	$55.24	$10.80	$16.80	$4.60	$0.00	$87.44
PLUMBERS & PIPEFITTERS LOCAL 51							
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"							

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.

DOCUMENT 00870

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246)
Revised April 9, 2019

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 (pursuant to 41 CFR 60-4.5) 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, Executive Order 11246, or the regulations promulgated pursuant thereto.

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 where there is an obligation to do so under 41 CFR Part 60-3.

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 pursuant to Executive Order 11246.

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 pursuant to Executive Order 11246, as amended, and its implementing regulations, 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 and Executive Order 11246, as amended.

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.

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 00880

Revised January 12, 2022

DEPARTMENT OF LABOR

Employment Standards Administration

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONTRACTS

"General Decision Number: MA20250017 04/04/2025

Superseded General Decision Number: MA20240017

State: Massachusetts

Construction Type: Highway

County: Bristol County in Massachusetts.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	03/14/2025
2	03/21/2025
3	04/04/2025

ELEC0103-003 03/01/2025

	Rates	Fringes
ELECTRICIAN (Includes Traffic Signalization)	$ 64.26	36.99

ENGI0004-021 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 57.03	33.20
GROUP 2	$ 56.40	33.20

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

POWER EQUIPMENT OPERATORS CLASSIFICATIONS
Group 1: Backhoe/Excavator/Trackhoe; Bobcat/Skid Steer/Skid Loader; Broom/Sweeper; Crane; Gradall; Loader; Paver (Asphalt, Aggregate, and Concrete); Post Driver (Guardrail/Fences)
Group 2: Bulldozer; Grader/Blade; Milling Machine; Roller

IRON0007-029 03/16/2024

	Rates	Fringes

IRONWORKER, ORNAMENTAL.....$ 54.68 36.48

LABO0133-001 12/01/2024

	Rates	Fringes
LABORER (Concrete Surfacer).....	$ 46.20	29.85

LABO0385-001 12/01/2024

	Rates	Fringes
LABORER		
Common or General.....	$ 38.95	29.41
Fence Erection.....	$ 38.95	29.41

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* 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
CEMENT MASON/CONCRETE FINISHER...	$ 56.70	21.08
IRONWORKER, REINFORCING.....	$ 42.13	18.15
IRONWORKER, STRUCTURAL.....	$ 45.19	17.30
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	$ 34.72	16.01
LABORER: Concrete Saw (Hand		

Held/Walk Behind).....	$ 44.43	14.18
LABORER: Jack Hammer.....	$ 35.32	18.48
OPERATOR: Forklift.....	$ 64.67	0.00
OPERATOR: Mechanic.....	$ 48.74	11.79
OPERATOR: Piledriver.....	$ 42.56	17.34
PAINTER: Spray (Linestriping)....	$ 47.30	6.42
TRAFFIC CONTROL: Flagger.....	$ 23.00	20.44
TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper.....	$ 53.35	12.78
TRUCK DRIVER: Concrete Truck....	$ 33.69	15.79
TRUCK DRIVER: Dump Truck.....	$ 39.03	12.89
TRUCK DRIVER: Flatbed Truck.....	$ 48.53	0.00

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.

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

Federal Aid Project No. CMQ/STP-0035(063)X
Multimodal Accommodation on School Street,
from Spring Street to West Street

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 *2025 Standard Specifications for Highways and Bridges, the Supplemental Specifications* contained in this book, the *Construction Standard Details* in effect as of June, 2025, the *1990 Standard Drawings for Signs and Supports*, the 2015 *Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD) with Revisions 1, 2, and 3 and the November 2022 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 consists of the reconstruction of School Street from Spring Street to West Street (approximately 2,100 feet) and incorporates multimodal transportation through the addition of sidewalk on both sides of the road and bike lanes. Other improvements include pedestrian curb ramps, pavement markings, regulatory signage and drainage improvements.

Additional work includes earth excavation, pavement milling, full depth hot mix asphalt pavement, concrete sidewalks, granite curb, and other incidental work.

SUBSECTION 7.05 INSURANCE REQUIREMENTS
B. Public Liability Insurance

The insurance requirements set forth in this subsection are in addition to the requirements of the Standard Specifications and supersede all other requirements.

Paragraphs 1 and 2

The Massachusetts Department of Transportation and applicable railroads shall be named as additional insureds.

WORK SCHEDULE

No work that will disrupt travel on the existing roadways (lane closures, lane shifts, trenching, etc.) shall be done from 6:00AM to 9:00AM and from 3:00PM to 7:00PM.

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.

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.

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.

HOLIDAY WORK RESTRICTIONS (Continued)

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.

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.

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 8.02 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.

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.

NOTICE TO OWNERS OF UTILITIES
(Supplementing Subsection 7.13)

Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of publicly or privately owned utilities of his/her intention to commence operations affecting such utilities at least one week in advance of such operations. The Contractor shall, at the same time, file a copy of each notice with the Engineer.

The following are the names of owners and representatives of the principal utilities that may be affected, but completeness of this list is not guaranteed:

TOWN OF MANSFIELD

Mansfield DPW
6 Park Row
Mansfield, MA 02048

Richard Alves, PE, Town Engineer
Phone: (508) 261.7377
ralves@mansfieldma.com

Mansfield Highway Operations Manager
500-C East Street
Mansfield, MA 02048

Andy Littig
Phone: (508) 261.7452
Alittig@mansfieldma.com

WATER

DPW – Water Division
500-B East Street
Mansfield, MA 02048

Shawn Precourt
Phone: (508) 261.7376
sprecourt@mansfieldma.com

SEWER

DPW – Sewer Division
6 Park Row
Mansfield, MA 02048

Lee Azinheira
Phone: (508) 261.7335
lazinheira@mansfieldma.com

ELECTRIC

Mansfield Municipal Electric Dept.
125 High Street, Unit #2
Mansfield, MA 02048

Ralph Bellavance
Phone: (508) 922.6475
ralph.bellavance@mansfieldma.com

TELEPHONE

Verizon
385 Myles Standish Blvd.
Taunton, MA 02780

Karen Mealey
Phone: (774) 409.3160
karen.m.mealey@verizon.com

GAS

Eversource Gas
995 Belmont Street
Brockton, MA 02301

Brendan Pitts
Phone: (508) 895.4818
Brendan.pitts@Eversource.com

NOTICE TO OWNERS OF UTILITIES (Continued)

CABLE

Comcast Cable Corporation
5 Omni Way, PO Box 6505
Chemsford, MA 01824

Wendy Brown
Phone: (978) 848.5163
wendy_brown@comcast.com

Crown Castle
80 Central Street
Boxborough, MA 01719

Mark Bonanno
Phone: (508) 616.7818
mark.bonanno@crowncastle.com

MCI-Verizon Business
PO Box 600
Charlton, MA 01507

Stephen Parretti
Phone: (508) 248.1305
stephen.parretti@verizon.com

A list of public and private utilities can be found on the MassDOT website at:
hwy.massdot.state.ma.us/webapps/utilities/select.asp
Select District 5 on top of the webpage, select the Town of Mansfield, and then locate the utility.

The utility contact list is for guidance only and is not guaranteed to be complete or up to date.

EVERSOURCE EMERGENCY TELEPHONE NUMBERS

GAS:
Outage/ Emergency: 800-592-2000
New Service: 866-678-2744
Customer Support: 800-592-2000

2026 FIFA WORLD CUP – BOSTON, MASSACHUSETTS

The 2026 FIFA World Cup will be held at Gillette Stadium in Foxborough and related events will be held throughout the region. Matches and Fan Fest activities are scheduled from June 11, 2026 through July 19, 2026. MassDOT will impose work restrictions as necessary to minimize traffic impacts during FIFA events when the Contractor's operations could impact vehicular traffic, particularly on interstate highways and major arterials throughout the region and local roads near the event site. No additional compensation will be allowed for work restrictions except as determined under Subsection 8.10

NOTIFICATION OF FUNDING SOURCES FOR WORK TO BE PAID BY OTHERS

This contract has an agreement with the ***Town of MANSFIELD;*** 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.

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.

BUILD AMERICA BUY AMERICA PREFERENCE (Continued)

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.

NOTE: The requirements for manufactured products indicated in paragraph (2) above are not in effect for this contract.

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.

MAINTENANCE OF TRAFFIC SIGNALS

It shall be the responsibility of the Contractor to provide all labor, equipment and material required for the total maintenance and repair of all existing and proposed traffic signal control equipment, including damage by automobile accidents until final completion and acceptance of the project, unless otherwise specified under Subsection 7.17 "Traffic Accommodation: of the Standard Specifications as amended, in which case Subsection 7.17 will govern. These provisions will apply to the signalized locations included as part of this construction Contract from the date of written notice given to the Engineer that the Contractor will work on or adjacent to an existing signal until the date when MassDOT and the Town accepts the complete project. This written notice must be given before the Contractor may proceed with any work on a specified traffic signa locations. For the purpose of these Special Provisions, the phrase "Traffic Signal Control Equipment" is intended to include, but is not limited to, controllers, signal housings, supporting structures, cabinet accessories and panels, wires, conduit, and all other ancillary electrical equipment used for traffic control.

The cost of the maintenance of signals shall be included in the various traffic signal Contract items and no additional payments will be made.

FINE TUNING, ADJUSTMENT, AND TESTING PERIOD

After the Contractor has finished installing all associated signal equipment and after the Contractor has set the signal equipment to operate as specified in the Contract documents, the fine tuning, adjusting and testing period shall begin. The Contractor shall advise the Engineer, in writing, of the date of the beginning of the fine tuning and testing period. This period shall not start until the work at the intersection is complete. During this period, the Contractor, under the direction of the Engineer, shall make necessary adjustments and tests to insure safe and efficient operation of the equipment. This period shall last for 30 days, and the Contract completion date has taken this testing period into consideration. No request for final acceptance will be considered until successful completion of the testing period.

The Contractor shall notify the Engineer in writing of the starting date of the fine-tuning period prior to the starting date.

FINAL INSPECTION AND ACCEPTANCE

Upon successful completion of the 30-day testing period wherein the traffic signals have operated for 30 days without failure, the Contractor shall notify MassDOT. The Engineer will make a final inspection of the installation in the presence of the MassDOT/Town and the Contractor. An inspection check will be made to ensure that all equipment, materials, installations, and operations are in accordance with the construction contract, plans and specifications. Items to be checked will include, but not be limited to, traffic signal system operation, cabinet equipment, documents (wiring diagrams, as-built plans, instruction manuals, parts list, warranties, grounding resistivity test report, etc.), signs, and pavement markings, and street hardware (posts, bases, housings, brackets, etc.).

The Engineer will notify the Contractor in writing of any items in which the inspection reveals that the work is incomplete, defective, or does not otherwise meet the project specifications. The Contractor shall perform the corrective actions necessary to achieve final acceptance by MassDOT and the Town. These corrective actions shall be done by and at the expense of the Contractor and within 15 days of the date of the inspection report, unless otherwise approved in writing by MassDOT.

GUARANTEE AFTER FINAL ACCEPTANCE

The Contractor shall diagnose (troubleshoot) the system and replace any part of the traffic signal system found to be defective in workmanship, material or manner of functioning within six months from date of final acceptance of all the installations under this Contract. This requirement does not affect the one-year warranty period on equipment specified in Subsection 815.20 of the Standard Specifications.

Upon the date of acceptance of the project by MassDOT, the Contractor shall turn over all guarantees and warranties to the Owner.

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 1.1 Million 18-kip (80-kn) ESALs.

ENVIRONMENTAL PERMITTING

A Negative Determination has been obtained from the Mansfield Conservation Commission under the Wetlands Protection Act. If field conditions and/or Contractor-proposed 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 District 5 Highway Director and Resident Engineer in writing at least 60 days prior to desired commencement of the proposed activity. All environmental submittals, including any contact with Local, State, or Federal environmental agencies, must be coordinated with the 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.

NORTHERN LONG-EARED BAT PROTECTION

The U.S. Fish and Wildlife Service (USFWS) has listed the northern long-eared bat (NLEB) as endangered under the Endangered Species Act (ESA) and the following requirements exist to protect the bat and its habitat. 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 for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat revised February 5, 2018 and amended March 31, 2023.

On behalf of FHWA, the lead federal agency for Section 7 consultation, MassDOT submitted a Programmatic Consultation for Transportation Projects affecting NLEB or Indiana Bat to the USFWS through the Information for Planning and Consultation (IPaC) webpage and generated a USFWS No Effect Consistency Letter (see **Document A00870-USFWS No Effect**), whereby it was determined that this Project will have "No Effect" to the NLEB. Therefore, the project has completed Section 7 consultation through the Endangered Species Act, and no AMMs apply to the project.

If the project scope changes (i.e., tree clearing, bridge work), additional review is required by the MassDOT Highway Division's Environmental Services Section. Contact MassDOT Environmental Services - Wildlife & Endangered Species Unit Supervisor (David Paulson, david.j.paulson@dot.state.ma.us, 857-262-3378).

SECTION 722
CONSTRUCTION SCHEDULING
DESCRIPTION

722.20 General

The Contractor's approach to prosecution of the Work shall be disclosed to the Department by submission of a Critical Path Method (CPM) schedule and a cost/resource loaded Construction Schedule as defined by the schedule type set forth below. These requirements are in addition to any requirements imposed in other sections.

This section establishes the requirement for scheduling submissions. There are four schedule types identified as types A, B, C and D.

All schedules shall be prepared and submitted in accordance with this specification and the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at https://www.mass.gov/info-details/massdot-highway-contractors-schedule-toolkit.

Type A –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Resources Graphic Reporting
- Cash Flow Projections from the CPM
- Cash Flow Charts
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type B –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Cost-loaded & Resource Loaded CPM
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

Type C –

- Schedule Planning Session
- Baseline CPM Schedule
- Monthly Update CPM Schedule
- Short-term Construction Schedule
- Contract Schedule Update Meeting
- Monthly Projected Spending Report (PSR)
- Contractor-furnished CPM software and computer

SECTION 722 (Continued)

Type D -

- Bar chart schedule updated monthly or at the request of the Engineer
- Short-term Construction Schedule
- Monthly Projected Spending Report (PSR)

EQUIPMENT, PERSONNEL

722.40 General

A. **Software Requirements**

The Contractor shall use Primavera P6 computer scheduling software.

In addition to the requirements of Section 740 – Engineer's Field Office and Equipment, the Contractor shall provide to the Department one (1) copy of the scheduling software, one (1) software license and one (1) computer capable of running the scheduling software for the duration of the Contract. This computer and software shall be installed in the Engineer's Field Office. The computer and software shall be maintained and serviced at no additional cost to the Department.

B. Scheduler Requirements

The Scheduler shall be approved by the Engineer.

For Type A, B and C Schedules the name of the Contractor's Project Scheduler together with his/her qualifications shall be submitted to the Department for approval by the Engineer within seven (7) Calendar Days after NTP. The Project Scheduler shall have a minimum of five (5) years of project CPM scheduling experience, three (3) years of which shall be on projects of similar scope and value as the project for which the Project Scheduler is being proposed. References shall be provided from past projects that can attest to the capabilities of the Project Scheduler.

SCHEDULING METHODS

722.60 General

A. **Schedule Planning Session**

The Contractor shall conduct a schedule planning session prior to submission of the Baseline Schedule. This session will be attended by the Department and its consultants. During this session, the Contractor shall present its planned approach to the project including, but not limited to:

1. the Work to be performed by the Contractor and its subcontractors;
2. the planned construction sequence and phasing; planned crew sizes;
3. summary of equipment types, sizes, and numbers to be used for each work activity;
4. all early work related to third party utilities;
5. identification of the most critical submittals and projected submission timelines;
6. estimated durations of major work activities;
7. the anticipated Critical Path of the project and a summary of the activities on that Critical Path;
8. a summary of the most difficult schedule challenges the Contractor is anticipating and how it plans to manage and control those challenges;

SECTION 722 (Continued)

9. a summary of the anticipated quarterly cash flow over the life of the project.

This will be an interactive session and the Contractor shall answer all questions that the Department and its consultants may have. The Contractor shall provide a written summary of the information presented and discussed during the session to the Engineer. The Contractor's Baseline Schedule and accompanying Schedule Narrative shall incorporate the information discussed at this Schedule Planning Session.

B. **Schedule Reviews by the Department**

1. Baseline Schedule Reviews
   The Engineer will respond to the Baseline Schedule Submission within thirty (30) Calendar Days of receipt providing comments, questions and/or disposition that either accepts the schedule or requires revision and resubmittal. Rejected Baseline Schedules shall be resubmitted within fifteen (15) Calendar Days after receipt of the Engineer's comments.
2. Contract Progress Schedule / Monthly Update Reviews / Recovery Schedules
   The Engineer will respond to each submittal within twenty-one (21) Calendar Days. Rejected schedules shall be resubmitted by the Contractor within five (5) Calendar Days after receipt of the Engineer's comments.

The Engineer's review comments shall not be construed as direction to change the Contractor's means and methods. The review and acceptance of the CPM schedule does not relieve the Contractor of the responsibility for accomplishing the work within the contract required completion dates. Omissions and errors in the accepted CPM schedule shall not excuse performance less than that required by the Contract.

722.61 Schedule Content and Preparation Requirements

All schedules shall be prepared and submitted in accordance with the instructions contained in the Construction Schedule Toolkit located on the MassDOT-Highway Division website at:
https://www.mass.gov/info-details/massdot-highway-contractors-schedule-toolkit
and the following:

A. **LOGIC**

The schedules shall divide the Work into activities with appropriate logic ties to show:

1. conformance with the requirements of this Section and Division I, Subsection 8.02 - Schedule of Operations
2. the Contractor's overall approach to the planning, scheduling, and execution of the Work
3. conformance with any additional sequences of Work required by the Contract Documents, including, but not limited to, Subsection 8.03 - Prosecution of Work and Subsection 8.06 – Limitations of Operations.

SECTION 722 (Continued)

B. **ACTIVITIES**

The schedule shall clearly define the progression of the Work from the Notice to Proceed (NTP) to Contractor Field Completion (CFC) by using separate activities, or including attributes within appropriate activities, to address each of the following:

1. Notice to Proceed
2. Work Breakdown Structure
3. The Critical Path is clearly defined and organized.
4. Float shall be clearly identified.
5. Detailed activities to satisfy permit requirements.
6. Subcontractor approvals at fifteen (15) Calendar Days from submittal to response
7. The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
8. The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be thirty (30) Calendar Days, unless otherwise specified or as approved by the Engineer.
9. Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
10. Each component of the Work defined by specific activities.
11. Right-of-Way (ROW) takings that have been identified in the Contract.
12. Early Utility Relocation (by others) that has been identified in the Contract.
13. Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
14. Utility work to be performed in accordance with the Project Utility Coordination (PUC) Form as provided in Section 8.14 - Utilities Coordination, Documentation and Monitoring Responsibilities
15. Access Restraints – restrictions on access to areas of the Work that are defined by the Department in the bid package, in Subsection 8.06 – Limitations of Operations or elsewhere in the Contract
16. Limitations of Work – time of year restrictions and any other limitations identified in the contract
17. Traffic work zone set-up and removal, night work and phasing
18. Material Certifications
19. Milestones listed in Subsection 8.03 - Prosecution of Work or elsewhere in the Contract Documents
20. For Type A and B Contracts only: All items to be paid for, including all Unit Price and Lump Sum pay items, shall be identified by activity. This shall include all non-construction activities such as engineering work; purchase of permanent materials and equipment, purchase of structural steel stock, equipment procurement, equipment delivery to the site or storage location and the representative amount of overhead/indirect costs that was included in the Contractor's Bid Prices.

SECTION 722 (Continued)

21. Contractor's request for validation of FBU (ready to open to traffic)
22. Full Beneficial Use (FBU) Contract Milestone per the following requirements: The majority of contract Work has been completed and the asset(s) has been opened for full multi-modal transportation use, except for limited contract work items that do not materially impair or hinder the intended public use of the transportation facility. All anticipated lane takings have been completed, except for minor, short term work items and as defined in Subsection 8.03 - Prosecution of Work
23. The Department's confirmation of completed work to allow for FBU.
24. Contractor's request for validation of Substantial Completion
25. Department generated punch list of twenty-one (21) Calendar Days
26. Substantial Completion Contract Milestone as defined in the standard specifications.
27. Punch list Completion Period of at least thirty (30) Calendar Days per the requirements of Subsections 5.11 - Final Acceptance, 7.15 - Claims Against Contractors for Payment of Labor, Materials and Other Purposes
28. Contractor confirmation that all punchlist work and documentation has been completed.
29. Physical Completion of the Work Contract Milestone per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
30. Documentation Completion per the requirements of Subsections 5.11 - Final Acceptance and 8.03 - Prosecution of Work
31. Contractor Field Completion Contract Milestone (which can also be considered the completion date) per the following requirements: All physical contract Work is complete including punchlist. The Contractor has fully de-mobilized from field operations and as defined in Subsection 5.11

C. **EARLY AND LATE DATES**

Early Dates shall be based on proceeding with the Work or a designated part of the Work exactly on the date when the corresponding Contract Time commences. Late Dates shall be based on completing the Work or a designated part of the Work exactly on the corresponding Contract Time, even if the Contractor anticipates early completion.

D. **DURATIONS**

Activity durations shall be in Work Days. Planned Original Durations shall be established with consideration of resources and production rates that correspond to the Contractor's Bid Price. Within all of the Department-required schedules, the Contractor shall plan the Work using durations for all physical construction activities of no less than one (1) Work Day and no greater than fourteen (14) Work Days, unless approved by the Engineer as part of the Baseline Schedule Review.

SECTION 722 (Continued)

Should there be an activity with a duration that is determined by the Engineer to be unreasonable, the Contractor will be asked to provide a basis of the duration using bid documents, historic production rates for similar work, or other form of validation that is acceptable to the Engineer. Should the Contractor and the Engineer be unable to agree on reasonable activity durations, the Engineer will, at a minimum, note the disagreement in the Baseline Schedule Review along with a duration the Engineer considers reasonable and the basis for that duration. A schedule that contains a substantial number of activities with durations that are deemed unreasonable by the Engineer will not be accepted.

E. **MATERIALS ON HAND**

The Contractor shall identify in the Baseline Schedule all items of permanent materials (Materials On Hand) for which the Contractor intends to request payment prior to the incorporation of such items into the Work.

F. **ACTIVITY DESCRIPTIONS**

The Contractor shall use activity descriptions in all schedules that clearly describe the work to be performed using a combination of words, structure numbers, station numbers, bid item numbers, work breakdown structure (WBS) and/or elevations in a concise and compact label.

G. **ACTIVITY IDENTIFICATION NUMBERS**

The Contractor shall use the activity identification numbering system specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

H. **ACTIVITY CODES**

The Contractor shall use the activity codes specified in the MassDOT Highway Division Contractor Construction Schedule Toolkit.

I. **CALENDARS**

Different calendars may be created and assigned to all activities or to individual activities. Calendars define the available hours of work in each Calendar Day, holidays and general or project-specific non-Work Days such as Fish Migration Periods, time-of-year (TOY) restrictions and/or area roadway restrictions. All calendars shall extend two years beyond the current project completion date.

Project Special Provisions identify specific calendar restrictions some examples of special calendars include, but are not limited to:

- Winter Shutdown Period, specific work is required by separate special provision to be performed during the winter. See Special Provision 8.03 (if applicable)
- Peak traffic hours on heavily traveled roadways. This shall be from 6:30 am to 9:30 am and from 3:30 pm to 7:00 pm, unless specified differently elsewhere in the Contract.
- Special requirements by sensitive abutters, railroads, utilities and/or other state agencies as defined in the Contract.
- Planting seasons for trees, shrubs and grasses and wetlands mitigation work.

SECTION 722 (Continued)

- Cape Cod and the Islands Summer Roadway Work Restrictions: A general restriction against highway and bridge construction is enforced between Memorial Day and Labor Day, unless otherwise directed by the Engineer. Cape Ann Summer Roadway Work Restrictions: While there are no general restrictions for Cape Ann as there are for Cape Cod and the Islands, project-specific restrictions may be enforced.
- Turtle and/or Fish Migration Periods and/or other in-water work restrictions: Refer to the Project Special Provisions for specific restrictions.
- Working over Waterways Restricted Periods.
- Night-time paving and striping operations, traffic, and temperature restrictions.
- Utility Restrictions shall be as specified within the Contract.

J. **FLOAT**

For the calculation of float in the CPM schedule, the setting for *Retained Logic* is required for all schedule submissions, starting with the Baseline Schedule Submission. Should the Contractor have a reason to propose that an alternative calculation setting such as *Progress Override* be used, the Contractor shall obtain the Engineer's approval prior to modifying to this setting.

K. **COST AND RESOURCE LOADING (Types A and B only)**

For all Type A and B Schedules, the Contractor shall provide a cost and resource-loaded schedule with an accurate allocation of the costs and resources necessary to complete the Work. The costs and resources shall be assigned to all schedule activities in order to enable the Contractor to efficiently execute the Contract requirements and the Engineer to validate the original plan, monitor progress, provide cash flow projections, and analyze delays.

1. Each schedule activity shall have an assigned cost that accurately represents the value of the Work. Each schedule activity shall have its resources assigned to it by craft and the anticipated hours to accomplish the work. Each schedule activity's equipment resources shall be assigned to it by equipment type and hours operated. Front-loading or other unbalancing of the cost distribution will not be permitted.
2. The sum of the cost of all schedule activities shall be equal to the Contractor's Bid Price.
3. Indicating the labor hours per individual, per day, by craft and equipment hours/day will be acceptable.
4. The Engineer reserves the right to use the cost-loading as a means to resolve changes, disputes, time entitlement evaluations, increases or decreases in the scope of Work, unit price renegotiations and/or claims.
5. For all Type A and B Schedules, all subnets, fragnets, Proposal Schedules, and Recovery Schedules shall be cost and resource- loaded to help to quickly validate and monitor the duration of the Work to be performed.
6. For Type A Schedules, cost-loading of the schedule will also be used for cash flow projection purposes.
7. The cost-loading of each activity shall indicate the portion of the cost for that activity that is applicable to a specific bid item (cost account.) The total cost for each cost account must equal the bid item price.

SECTION 722 (Continued)

L. **NOT TO BE USED IN THE CONTRACTOR'S CPM SCHEDULE**

1. Milestones or constraint dates not specified in the Contract.
2. Scheduled work not required for the accomplishment of a Contract Milestone
3. Use of activity durations, logic ties and/or sequences deemed unreasonable by the Engineer.
4. Delayed starts of follow-on trades.
5. Float suppression techniques.
6. Leads such as leads, lags, SS, SF, & FF relationships without the expressed permission of the Department.

722.62 Submittal Requirements

All schedules shall be prepared and submitted in accordance with the requirements listed below.

Each monthly Contract Progress Schedule submittal shall be uniquely identified.

Each Submission shall, at a minimum, include the following:

a. Narrative
b. Schedule submittals shall be signed by the Scheduler
c. Schedule Printout - All Activities
d. Schedule Printout - Critical Path Layout
e. Schedule Printout - Remaining Work
f. Schedule Printout - Top 3 Float Path
g. Work Breakdown Structure (WBS) Summary
h. Project Spending Report (PSR) in Portable Document Format (.PDF)
i. Project Spending Report (PSR) in Microsoft Excel spreadsheet (.XLS)
j. Oracle Primavera P6 Schedule File (.XER)

All digital file submittals will be labeled with the following information.

- Contract Number
- Project Number
- Project locations (i.e., town(s))
- Brief description
- Submittal description (i.e., UP07)
- Data Date (MM-DD-YY)
- File Description (i.e., Critical Path)

Example: C110464 (P606309) - Orange Route 2 over 202 – UP23 (07-15-22) - Critical Path

A. **Narratives**

A written narrative shall be submitted with every schedule submittal. The narrative shall:

1. itemize and describe the flow of work for all activities on the Critical Path in a format that includes any changes made to the schedule since the previous Contract Progress Schedule / Monthly Update or the Baseline Schedule, whichever is most recent.
2. provide a description of any specification requirements that are not being followed. Identify those that are improvements and those that are not considered to be meeting the requirements.

SECTION 722 (Continued)

3. provide all references to any Notice of Delay that has been issued, within the time period of the Contract Progress Schedule Update, by letter to the Engineer. Note that any Notice of Delay that is not issued by letter will not be recognized by the Engineer. See Subsection 722.64.A – Notice of Delay.
4. provide a description of each third-party utility's planned vs. actual progress and note any that are trending late or are late per the durations and commitments as provided in the PUC Form; provide a description of the five (5) most important responses needed from the Department and the need date for the responses in order to maintain the current Schedule of Record.
5. provide a description of all critical issues that are not within the control of the Contractor or the Department (third party) and any impact they had or may have on the Critical Path.
6. provide a description of any possible considerations to improve the probability of completing the project early or on time.
7. compare Early and Late Dates for activities on the Critical Path and describe reasons for changes in the top three (3) most critical paths.
8. describe the Contractor's plan, approach, methodologies, and resources to be employed for completing the various operations and elements of the Work for the top three (3) most critical paths. For update schedules, describe and propose changes to those plans and verify that a Proposal Schedule is not required.
9. describe, in general, the need for shifts that are not 5 days/week, 8 hours/day, the holidays that are inserted into each calendar and a tabulation of each calendar that has been used in the schedule.
10. describe any out-of-sequence logic and provide an explanation of why each out-of-sequence activity does not require a correction, if one has not been provided, and an adequate demonstration that these changes represent the basis of how these activities will be built, including considerations for resources, dependencies, and previously approved production rates.
11. identify any possible duration increases resulting from actual or anticipated unit price item quantity overruns as compared to the baseline duration, with a corresponding suggestion to mitigate any possible delays to the Critical Path. If the delay is anticipated to impact the Critical Path, refer to Subsections 4.06 – Increased or Decreased Contract Quantities and 8.10 – Determination and Extension of Contract Time for Completion and submit a letter to the Engineer notifying of a potential delay.
12. include a schedule log consisting of the name of the schedule, the data date and the date submitted.
13. include and describe any notifications, communications and coordination meetings with third-parties such as utility companies that occurred from the last update including personnel names, job titles and contact information, date of meeting(s)/correspondence(s), topics discussed, and reasons the third party provided for deviations from the PUC form.

SECTION 722 (Continued)

B. **CPM Bar Charts**

One (1) timescaled bar chart containing all activities shall be prepared and submitted using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements Activities shall be linked by logic ties and shown on their Early Dates. Critical Paths shall be highlighted, and Total Float shall be shown for all activities.

A second timescaled bar chart shall also be prepared containing only the Critical Path or, if the Critical Path is not the longest path, the Longest Path using a scale that yields readable plots and that meets the requirements of Subsection 722.61 – Schedule Content and Preparation Requirements. Activities shall be linked by logic ties and shown on their Early Dates. Total Float shall be shown for all activities.

C. Detailed Activity Schedule Comparisons

A Detailed Activity Schedule Comparison (DASC) is a simple reporting tool in the format of a graphical report that will provide Resident Engineers with immediate, timely and up-to-date information. The DASC consists of an updated bar chart that overlays the current time period's bar chart onto the previous time period's bar chart for an easily read comparison of progress during the present and previous reporting periods.

D. Activity Cost Report and Monthly Cash Flow Projections (Type A only)

With each Contractor Quantity Estimate (CQE), the Contractor shall submit an Activity Cost Report and Cash Flow Projection that includes all activities grouped by Contract Bid Item.

The Activity Cost Report shall be generated from the Schedule of Record and shall be the basis of the Monthly Cash Flow Projection. Within each contract Bid Item, activities shall be sequenced by ascending activity identification number and shall show:

1. activity ID and description,
2. forecast start and finish dates for each activity and,
3. when submitted as a revised schedule, actual start, and finish dates for each completed activity.
4. any variance to the estimated contract quantity shall be shown.

E. Resource Graphs (Type A only)

Monthly and cumulative resource graphs for the remaining Contract period using the Early Dates and Late Dates in the Contract Progress Schedule shall be included as part of each schedule submittal.

SECTION 722 (Continued)

F. Projected Spending Reports

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF.

722.63. Progress Schedule Requirements

A. Baseline Schedule

The Baseline Schedule shall be due thirty (30) Calendar Days after Notice to Proceed (NTP). The Baseline Schedule shall only reflect the Work awarded to the Contractor and shall not include any additional work involving Extra Work Orders or any other type of alleged delay. The Baseline Schedule shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements. Once the Baseline Schedule has been accepted by the Engineer, with or without comments, it shall represent the as-planned schedule for the Work and become the Contract Progress Schedule of Record until such time as the schedule is updated or revised under Subsections 722.63.C - Contract Progress Schedules / Monthly Updates, 722.64.C - Recovery Schedules and 722.64.D - Proposal Schedules.

The Cost and Resource-Loading information (Types A and B only) shall be provided by the Contractor within forty-five (45) Calendar Days after NTP.

The Engineer's review comments on the Baseline Schedule and the Contractor's responses to them will be maintained for the duration of the Contract and will be used by the Engineer to monitor the Contractor's work progress by comparing it to the Contract Progress Schedule / Monthly Update.

B. Interim Progress-Only Schedule Submissions

The first monthly update of the Contract Progress Schedule/Monthly Update is due within seventy (70) Calendar Days after Notice to Proceed (NTP.) The Baseline Schedule review period ends at sixty (60) Calendar Days after NTP, see Subsection 722.60.B - Schedule Reviews by the Department. If the Baseline Schedule has not been accepted within sixty (60) Calendar Days after NTP, an Interim Progress-Only Schedule shall be due within seventy (70) Calendar Days after NTP. The purpose of the Interim Progress-Only Schedule is to document the actual progress of all activities, including non-construction activities, from NTP until the Baseline Schedule is accepted.

SECTION 722 (Continued)

C. Contract Progress Schedules / Monthly Updates

The first Contract Progress Schedule shall be submitted by the Contractor no later than seventy (70) Calendar Days after NTP. The data date for this first Progress Schedule shall be two months (approximately sixty (60) Calendar Days) after NTP. Subsequent Progress Schedules shall be submitted monthly.

Each Contract Progress Schedule shall reflect progress up to the data date. Updated progress shall be limited to asbuilt sequencing and asbuilt dates for completed and inprogress activities. Asbuilt data shall include actual start dates, remaining Work Days and actual finish dates for each activity, but shall not change any activity descriptions, the Original Durations, or the Original Resources (as planned at the time of bid), without the acceptance of the Engineer. If any activities have been completed out-of-sequence, the Contractor shall propose new logic ties for affected in-progress and future activities that accurately reflect the previously approved sequencing. Alternatively, the Contractor may submit to the Engineer for approval an explanation of why an out-of-sequence activity does not require a correction and an adequate demonstration that the changes accurately represent how the activities will be built, including considerations for resources, dependencies, and previously approved production rates. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

No revisions to logic ties, sequence, description, or duration of future activities; or planned resource costs shall be made without prior approval by the Engineer.

Any proposed logic changes for in-progress or future activities shall be submitted to the Engineer for approval before being incorporated into a Contract Progress Schedule. The logic changes must be submitted using a Proposal Schedule or a schedule fragnet submission. Once approved by the Engineer, the Contractor may incorporate the logic in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

For any proposed changes to the original sequence, description or duration of future activities, the Contractor shall submit to the Engineer for approval an explanation of how the proposed description or duration change reflects how the activity will be progressed, including considerations for resources and previously approved production rates. Any description or duration change that does not accurately reflect how the activity will be progressed will not be approved by the Engineer. Once approved by the Engineer, the Contractor may incorporate the changes in the next Contract Progress Schedule/Monthly Update with the affected activities clearly identified and explained in the Schedule Narrative.

Contract Progress Schedules that extend performance beyond the Contract Time or beyond any Contract Milestone shall not be approved by the Engineer. The Contractor shall submit a Recovery Schedule, or a Time Entitlement Analysis, if any Contract Progress Schedule/Monthly Update indicates a failure to meet the Contract Dates.

SECTION 722 (Continued)

D. Short-Term Construction Schedule

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work for the two (2) week period prior and all planned work for the following three (3) week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities. Short-Term Construction Schedules shall be prepared and submitted in accordance with Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements.

722.64 Impacted Schedule Requirements

A. Notice of Delay

The Contractor shall notify the Engineer in writing, with copies to the District and State Construction Engineers, within fifteen (15) of the start of any delays to the Critical Path that are caused by actions or inactions that were not within the control of the Contractor. Delay notifications that are not provided in a letter to the Engineer, such as a delay notification in the schedule narrative, will not be recognized as contractual notice in the determination of any Time Extension related to the impacts to the work associated with this specific alleged delay. Should such a delay continue for more than one (1) week, the Contractor shall note it in the Schedule Narrative until the delay is no longer impacting the Critical Path for the completion of the Contract Milestones. The Engineer will evaluate the alleged delay and its impact and will respond to the Contractor within ten (10) Calendar Days after receipt of a notice of delay.

B. Time Entitlement Analysis

A Time Entitlement Analysis (TEA) shall consist of a descriptive narrative, prepared in accordance with Subsection 722.62.A - Narratives, and an as-built CPM schedule, which may be in the form of a schedule fragnet that has been developed from the project's Contract Progress Schedule of Record, and illustrates the impact of a delay to the Critical Path, Contract Milestones and/or Contract Completion Date as required in Subsection 8.10 - Determination and Extension of Contract Time for Completion. TEAs shall also be used to determine the schedule impact of proposed Extra Work Orders (EWO) as also required in Subsection 8.10.

TEAs shall be prepared and submitted in accordance with the requirements of Subsections 722.61 - Schedule Content and Preparation Requirements and 722.62 - Submittal Requirements and shall be based on the Contract Progress Schedule of Record applicable at the start of the delay or impact from an EWO. A TEA fragnet must start with a specific new activity describing the work contained in either a Notice of Delay previously submitted to the Department per Subsection 722.64.A - Notice of Delay or an EWO.

SECTION 722 (Continued)

TEAs shall be submitted:

1. as part of any Extra Work Order that may impact Contract Time,
2. with a request for a Time Extension,
3. within fifteen (15) Calendar Days after a request for a TEA by the Engineer for any other reason.

A TEA shall be submitted to the Engineer before any Time Extension is granted to the Contractor. Time Extensions will not be granted unless the TEA accurately reflects an evaluation of all past delays and the actual events that occurred that impacted the Critical Path. The TEA must also demonstrate a plan for the efficient completion of all of the remaining work through an optimized CPM Schedule. The analysis shall include all delays, including Contractor-caused delays, and shall be subdivided into timeframes and causes of delays.

TEAs shall incorporate any proposed activities, logic ties, resource considerations, and activity costs required to demonstrate the schedule impacts most efficiently in addition to detailing all impacts to existing activities, logic ties, the Critical Path, Contract Milestones, and the Contract Completion Date. In addition, TEAs shall accurately reflect any changes made to activities, logic ties, restraints, and activity costs, necessitated by an Extra Work Order or other schedule impact, for the completion of the remaining work. The Contractor shall provide TEAs that demonstrate that all delays have been mitigated to the fullest extent possible without requiring an Equitable Adjustment to the original bid basis.

All TEAs shall clearly indicate any overtime hours, additional shifts and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. The Engineer shall have the right to require that overtime hours and/or additional shifts be used to minimize the duration of Time Extensions if it is determined to be in the best interest of the Department to do so.

When accepted, the changes included in a TEA shall be incorporated into the next Contract Progress Schedule per the requirements of Subsection 722.63.C - Contract Progress Schedules / Monthly Updates. During the review of any TEA, all Contract Progress Schedules shall continue to be submitted as required.

The Engineer may request that the Contractor prepare a Proposal Schedule or a Recovery Schedule to further mitigate any delays that are shown in the accepted TEA or Contract Progress Schedule.

C. Recovery Schedules

The Contractor shall promptly report to the Engineer all schedule delays during the prosecution of the Work. Contract Progress Schedules that predict performance extended beyond the Contract Time or beyond any Contract Milestone shall not be approved as the schedule of record. This requirement is critical to the Department's ability to make informed decisions regarding Contract Time and costs.

The Contractor shall submit a Recovery Schedule within fifteen (15) Calendar Days of a Contract Progress Schedule submission that shows failure to meet the Contract Dates unless a recovery schedule is waived by the Department. Waiving the recovery schedule does not relieve the contractor of the responsibility for the delay. The Department may revoke the waiver of a Recovery Schedule, at which time a Recovery Schedule shall be submitted within fifteen (15) Calendar Days of the Contractor being notified.

Changes represented in accepted Recovery Schedules shall be incorporated into the next Contract Progress Schedule.

SECTION 722 (Continued)

D. Proposal Schedules

A Proposal Schedule is an alternative schedule used to evaluate proposed changes to the Contract scope or significant alternatives to previously approved approaches to complete the Work, which may include changes to activity durations, logic, and sequence. For Types A and B Schedules, the Proposal Schedule shall be cost and resource loaded.

A Proposal Schedule may be requested by the Department at any time or may be offered by the Contractor. The Engineer may request that the Contractor prepare a Proposal Schedule to further mitigate any delays that are shown in an accepted TEA or Contract Progress Schedule.

The Contractor shall submit the Proposal Schedule within thirty (30) Calendar Days of a request from the Department.

The Proposal Schedule shall not be considered a Schedule of Record until the logic, durations, narrative, and basis of the Proposal Schedule have been accepted by the Engineer. If the Proposal Schedule took the form of a fragnet, it must be incorporated into the Contract Progress Schedule of Record showing the current progress of all other activities and the impacts/results of the changes made by the Proposal Schedule before the Proposal Schedule is accepted by the Department.

Proposal Schedules shall clearly indicate any proposed acceleration including overtime hours, additional shifts, and the resources that are proposed to be incorporated in the schedule. The Engineer shall have final discretion over the use of overtime hours and additional shifts. Proposal Schedules that contain a cost element shall be submitted with a separate Cost Proposal.

Changes represented in the accepted Proposal Schedules shall be incorporated into the next Contract Progress Schedule. During the review of any Proposal Schedule, all Contract Progress Schedules shall continue to be required every month.

E. Disputes

All schedules shall be submitted, reviewed, dispositioned, and accepted in the timely manner specified herein so as to provide the greatest possible benefit to the execution of this Contract.

The Contractor may dispute a decision by the Engineer by filing a claim notice within seven (7) days after the Contractor's request for additional time has been denied or if the Contractor does not accept the number of days granted in a time extension. The Contractor's claim notice shall include a revised time entitlement analysis that sufficiently explains the basis of the time-related claim. Failure to submit the required time entitlement analysis with the claim notice shall result in denial of the Contractor's claim. A determination on the Contractor’s claim shall be in accordance with Subsection 7.16 Claims of Contractor for Compensation. Pending resolution of any dispute, the last schedule accepted by the Engineer will remain the Contract Schedule of Record.

SECTION 722 (Continued)

722.65 Schedule Type D Requirements

This section is to detail the requirements for Type D Schedules and is separate from the requirements listed above. These schedules are intended for a project in which a more formal schedule would not be practical.

Schedules for Type D projects shall be submitted for each work assignment. The Schedule Type D shall be submitted electronically in .XLS and .PDF format and meet the following requirements.

The schedule requirements for work assignments that are anticipated to last three weeks or less shall conform to the requirements for Short-term Construction Schedules below.

Work assignments that are anticipated to last longer than three weeks shall submit a bar chart baseline and provided update schedules upon request of the engineer as required under Bar Chart Schedule below in addition to meeting the Short-term Construction schedule requirements.

A. **Bar Chart Schedule**

A Bar Chart that shall include the following:

- Work Assignment start date.
- Activities to identify.
  - Major work operations broken down to be no longer than 14 days.
  - Procurement of fabricated materials and equipment with long lead times, including time for review and approval of submittals required before procuring and fabricating.
  - The preparation and submission of shop drawings, procedures, and other required submittals, with a planned duration that is to be demonstrated to the Engineer as reasonable.
  - The review and return of shop drawings, procedures, and other required submittals, approved or with comments, the duration of which shall be shown as thirty (30) Calendar Days,
  - Detailed activities to satisfy permit requirements.
  - Subcontractor approvals at fifteen (15) Calendar Days from submittal to response
  - Project Close out activities including a 21-calendar day creation of a punchlist activity and 30 calendar day minimum completion of punchlist activity.
- Interfaces with adjacent work, utility companies, other public agencies, sensitive abutters, and/or any other third-party work affecting the Contract.
- Access Restraints – restrictions on access to areas of the Work
- Traffic work zone set-up and removal, night work and phasing
- Contract Milestones including Full beneficial Use, Substantial Completion and Contractor Field Completion

The Bar Char Schedule shall be provided at the beginning of the project and updated with each work order created for the project.

SECTION 722 (Continued)

B. **Short-Term Construction Schedule**

The Contractor shall provide a Short-Term Construction Schedule that details daily work activities, including any multiple shift work that the Contractor intends to conduct, in a spreadsheet format. The daily activities shall directly correspond to the Contract Progress Schedule activities, with a matching reference to the activity identification number in the Contract Progress Schedule and may be at a greater level of detail. See schedule toolkit for suggested format.

The Short-Term Construction Schedule shall be submitted every two weeks. It shall display all work for a thirty-five (35) Calendar Day period consisting of completed work on the assignment for the two week period prior and all planned work for the following three week period. The initial submission shall be provided no later than thirty (30) Calendar Days after NTP or as required by the Engineer.

The Contractor shall be prepared to discuss the Short-Term Construction Schedule, in detail, with the Engineer in order to coordinate field inspection staff requirements, the schedule of work affecting abutters and any corresponding work with affected utilities.

C. **Project Spending Report (PSR)**

A Projected Spending Report (PSR) shall be prepared and submitted monthly. The PSR shall be for all active work assignments, broken down by work assignment. The PSR shall indicate the monthly spending (cash flow) projection for each month from NTP to Contractor Field Completion (CFC). Each month's actual spending shall be calculated using all CQEs paid during that month. The Projected Spending Report (PSR) shall be depicted in a tabular format and provided in both an .XLS and .PDF

SECTION 722 (Continued)

COMPENSATION

722.80 Method of Measurement

Schedule of Operations (Type A, B and C)

The project bid documents specify the fixed-price amounts to be paid to the Contractor for the Project Schedule requirements contained herein. Each bidder shall include this fixed price bid item amounts in their bid. Failure to do so may be grounds for the rejection of the bid.

This fixed price amount is for payment purposes only and is separate from what the Department considers to be the Contractor's General Condition costs. If the Contractor deems it necessary to include additional costs to provide all of the requirements of this section, these additional costs shall be included in the Contractor's overall bid price.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals will be paid for under the fixed price amount.

Twenty percent (20%) of this pay item will be paid upon the Engineer's acceptance of the Contractor's Baseline Schedule, prepared and submitted in accordance with Subsection 722.63.A.

The remaining eighty percent (80%) of this pay item will be paid in equal monthly installments distributed across the Contract Duration from Notice to Proceed (NTP) to Contractor Field Completion (CFC), less the 2 months required for the submittal and review of the Baseline Schedule in accordance with the following formula:

$$\text{Monthly Payment} = \frac{\text{Remaining Fixed Price amount (80\% of the Item Cost.)}}{\text{Contract Duration in whole months} - 2 \text{ months}}$$

The Schedule of Operations pay item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

Should there be a Time Extension granted to the Contractor, the Engineer may provide an Equitable Adjustment for additional Contract Progress Schedule Updates at intervals directed by the Engineer. The monthly payment will be the basis for this Equitable Adjustment.

Schedule of Operations (Type D)

For projects assigned with Type D schedule requirements, all scheduling work shall be considered incidental to the project with no separate payment under this section.

SECTION 722 (Continued)

722.81 Basis of Payment

The timely and accurate submission of the Baseline Schedule is critical to the Contract and the Department's ability to make informed decisions. Only payments under Item 740 - Engineer's Field Office and Item 748 – Mobilization will be made until the Baseline Schedule is accepted by the Engineer.

All required schedule-related work, including, but not limited to computers, computer software, the planning and coordination with utilities, training, schedule preparation and schedule submittals (including monthly progress schedules, short-term schedules, project spending reports, TEAs, recovery schedules or impacted schedules) shall be included in this work.

No payment for any other pay item will be processed beyond seventy-five (75) Calendar Days from Notice to Proceed (NTP) until the Baseline Schedule is accepted by the Engineer. Until the Engineer's acceptance of the Baseline Schedule, the combined total of all payments made to the Contractor will be limited to an amount no greater than the total price for Item 748 - Mobilization or 3% of the contract price, whichever is less.

All Contract Progress Schedule Updates submitted later than ten (10) Calendar Days after the CQE (Contract Quantity Estimate) completion date, or greater than forty (40) Calendar Days from the Data Date of the previous submission, will be deemed to be no longer useful and will not qualify for payment. The late submission of Impacted schedules, including TEAs, recovery schedules and proposal schedules will result in the forfeiture of the monthly payment for the month in which they were due and subsequent months until the submission is made. Late submission of missed submittals will not result in recovery of the previously forfeited portion of the Schedule of Operations Fixed Price Payment Item.

Failure to submit schedules as and when required may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

Failure to submit schedules that are acceptable to the Engineer may result in the forfeiture of that portion of the Schedule of Operations Fixed Price Payment and/or the withholding of the full or partial CQE payments by the Engineer.

The Schedule of Operations pay item will be adjusted to pay for only the actual quantity of schedules that have been submitted in accordance with this section.

The Contractor's failure or refusal to comply with the requirements of this Section shall be reasonable evidence that the Contractor is not prosecuting the Work with due diligence and may result in the Engineer withholding of full or partial payments of all work performed.

722.82 Payment Items

722.1	SCHEDULE OF OPERATIONS (TYPE A) - FIXED PRICE $_____	LUMP SUM
722.2	SCHEDULE OF OPERATIONS (TYPE B) - FIXED PRICE $_____	LUMP SUM
722.3	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE $_____	LUMP SUM

ITEM 101. CLEARING AND GRUBBING ACRE

The work under this Item shall conform to the relevant provisions of Subsection 101 of the Standard Specifications and the following:

The work under this Item shall include clearing and grubbing the existing drainage channel at Station 24+70 LT to re-establish the channel

METHOD OF MEASUREMENT

Item 101. will be measured for payment by the ACRE of clearing and grubbing completed. The area will be the horizontal plane area and will be the number of acres within the limiting stations listed above, excluding existing roadway and shoulder surfaces, streams or bodies of water. The clearing and grubbing limit shall be at the limit of grading shown on the plans and shall not extend 5 feet beyond.

BASIS OF PAYMENT

Item 101. will be paid for at the Contract unit price per ACRE and shall include Labor, materials, equipment , and all incidental costs required to complete the work, the removal of all brush, trees, stumps and roots within the designated area. No separate payment will be made for any individual trees or stumps removed within the area.

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 Subsection 771.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Tree and Plant Protection Fence will be measured by the FOOT, complete in place, by the length along the top of the fence.

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.

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 102.521 (Continued)

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 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.

Method of Measurement and 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.

ITEM 180.03 (Continued)

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 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 201.	**CATCH BASIN**	**EACH**
ITEM 202.	**MANHOLE**	**EACH**
ITEM 203.	**SPECIAL MANHOLE**	**EACH**

The work under these Items shall conform to the relevant provisions of Subsections 201 and 220 of the Standard Specifications, the plans and the following:

All proposed catch basins shall be constructed with a minimum 4-foot sump. Eccentric cones may be required to install proposed catch basins and avoid existing trees, utilities, or other objects.

METHOD OF MEASUREMENT

Items 201,202, and 203 will be respectively measured for payment by the EACH regardless of depth.

BASIS OF PAYMENT

Items 201,202, and 203 will be paid for at the respective Contract unit price per EACH, which price shall include all labor, materials, equipment and all incidental costs required to complete the work.

ITEM 220.8 SANITARY STRUCTURE REMODELED EACH

The work under this Item shall conform to the relevant provisions of Subsection 220 of the Standard Specifications and the following:

The work under this Item shall include the remodel of existing sewer manholes as shown on the plans to meet the proposed grades.

The existing castings shall be removed and discarded. New frame and covers shall be installed and paid for under Item 221. Iron castings shall be on the Qualified Construction Materials List (QCML)

Debris, excess mortar or other material resulting from the work shall be removed from the manhole.

METHOD OF MEASUREMENT

Item 220.8 will be measured for payment by the EACH sanitary structure remodeled, complete in place.

BASIS OF PAYMENT

Item 220.8 will be paid for at the Contract unit price per EACH, which price shall include all labor, materials, equipment, sawcutting, and all incidental costs required to complete the work.

ITEM 271.12 **12 INCH AND UNDER PIPE REMOVED AND STACKED** **FOOT**

The work under this Item shall conform to the relevant provision of Subsection 270. of the Standard Specifications supplemented by the following:

All existing drainage pipes shown on the plans to be removed and stacked shall be removed by the Contractor and stacked at 500-C East Street Mansfield, MA 02048. The Contractor shall coordinate with the Town of Mansfield's Highway Operations Manager, Andy Littig, to schedule drop-off time and location.

The work will include the backfill of the areas where the pipe is removed with acceptable material as required by the Engineer.

METHOD OF MEASUREMENT

Item 271.12 will be measured for payment by the FOOT of 12 inch and under pipe removed and stacked.

and shall include all excavation, equipment, backfill material and labor necessary to complete this work.

BASIS OF PAYMENT

Item 271.12 will be paid for at the Contract unit price per FOOT, which price shall include all excavation, backfill, transportation, labor, materials, equipment, and all incidental costs required to complete the work.

ITEM 303.06	**6 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)**	**FOOT**
ITEM 303.12	**12 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)**	**FOOT**
ITEM 309.	**DUCTILE IRON FITTINGS FOR WATER PIPE**	**POUND**
ITEM 336.1	**1 INCH PLASTIC WATER PIPE**	**FOOT**
ITEM 350.06	**6 INCH GATE AND GATE BOX**	**EACH**
ITEM 350.12	**12 INCH GATE AND GATE BOX**	**EACH**
ITEM 363.1	**1 INCH CORPORATION COCK**	**EACH**
ITEM 371.12	**12 INCH COUPLING**	**EACH**
ITEM 376.1	**HYDRANT – EXCLUDING COST OF HYDRANT**	**EACH**
ITEM 381.	**SERVICE BOX**	**EACH**
ITEM 384.	**CURB STOP**	**EACH**
ITEM 903.1	**PRECAST THRUST BLOCK**	**EACH**

The work under these Items shall conform to the relevant provisions of Subsection 301 of the Standard Specifications and the following.

All work shall conform to the Town of Mansfield's Department of Public Works Water Regulations and Fee Schedule Policy, dated December 2005 (included herein as Document A00805). The work shall include the furnishing and installation of all materials required to replace gate boxes that cannot be adjusted.

Approval of Materials

The Contractor shall submit the names of the material suppliers, shop drawings and certificates of compliance to the Engineer for approval prior to ordering any materials.

Pipe and Fittings
All materials shall conform to the Town of Mansfield's specifications(included herein as Document A00805).

Pipe shall be standard restrained mechanical joint pipe. Rubber gaskets for mechanical joints shall conform to ANSI A21.11/AWWA C111.

Pipe shall be supplied in lengths not exceeding 20 feet. Each pipe and fitting shall markings casted into the metal in accordance with ANSI A21.10/AWWA C110, including manufacturer's identification, country material was made in, pressure rating, nominal diameter and degrees or fraction of circle (for bends).

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

Pipe and Fittings Installation

The Contractor shall make all necessary arrangements with the Town of Mansfield DPW and Fire Departments for the necessary shutdowns of service.

The Town of Mansfield DPW may establish the time of shutdown to be within the normal daily low demand period.

Care shall be taken in loading, transporting, and unloading to prevent injury to the pipes, fittings or coatings. Pipe and fittings shall not be dropped. All pipe or fittings shall be examined before laying and no piece shall be installed which is found to be defective. Any damage to the pipe coatings shall be repaired as directed by the Engineer. Any pipe found to be defective, before or after laying, shall be satisfactorily removed and replaced with sound pipe at no additional cost to the Owner.

All pipe and fittings shall be installed in conformance with AWWA Standard Specifications C600, except as otherwise provided herein. All pipe and fittings shall be sound and clean before laying and shall be laid on a shaped bedding providing uniform, firm support over the entire length of each section barrel. BLOCKING WILL NOT BE PERMITTED. The select bedding material shall be placed and tamped along the sides of the pipe to complete the bedding.

Pipe shall be laid with good alignment and at the depth shown on the Contract Drawings. Joint deflection shall not exceed 75% of that recommended by the manufacturer. Additional fittings shall be furnished and installed as required to cross existing utilities. Solid sleeves shall be used only where approved by the Engineer.

When pipe laying is stopped for any length of time, including short periods, the open ends of the pipe and fittings shall be closed with a watertight plug or cap as approved by the Engineer.

Necessary pipe cutting shall be accomplished by power saw and shall leave a smooth cut at right angles to the axis of the pipe. Cut ends of pipe to be used with a push-on bell shall be beveled to conform to the manufactured spigot end. Cement lining shall be undamaged.

Mechanical joints shall be installed in accordance with the "Notes of Method of Installation" of ANSI A21.11 and the instructions of the manufacturer. The Contractor shall thoroughly clean the joint surfaces and rubber gasket with soapy water before tightening the bolts. Bolts shall be tightened to the specified torques.

Extension wrenches or pipe over handle or ordinary ratchet wrench shall not be used to secure greater leverage.

Water/Sewer Separation

When a water pipe crosses above or below a sewer pipe, the following procedures shall be utilized. The Contractor shall comply with these following procedures:

Whenever possible, water mains shall be laid at a minimum at least 10 feet, horizontally, from any existing sewer. Should local conditions prevent a lateral separation of 10 feet, a water main may be laid closer than 10 feet to a sewer if:

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

a. It is laid in a separate trench, or if;
b. It is laid in the same trench with the sewer located at one side on a bench of undisturbed earth, and if;
c. In either case, the elevations of the top (crown) of the sewer is at least 18 inches below the bottom (invert) of the water main.

Whenever water mains must cross sewers, the water main shall be laid at such an elevation that the outside of the water main is at least 18 inches from the outside of the sewer. When the elevation of the sewer cannot be varied to meet the above requirements, the water main shall be relocated to provide this separation or reconstructed with mechanical-joint pipe for a distance of 10 feet on each side of the sewer. One full length of water main should be centered over the sewer so that both joints will be as far from the sewer as possible.

When it is impossible to obtain horizontal and/or vertical separation as stipulated above, both the water main and sewer shall be constructed of mechanical-joint cement lined ductile iron pipe or other equivalent based on water tightness and structural soundness. Both pipes shall be pressure tested by an approved method to assure water tightness or both pipes shall be encased in concrete.

Gate Boxes

Gate 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.

Service Piping

The service pipe shall be at least one-inch in diameter.No sweat fittings or unions shall be allowed between the curb stop and the meter regardless of the meter location. Where the service length is 100 feet or greater, the size of the service pipe shall be subject to approval by the Division. One union shall be allowed for 2 inch diameter service pipe.

Plastic service pipes shall be copper tubing size with a 200 psi working pressure. The pipe shall be grounded at both ends with 12 gauge solid copper wire and with stainless steel inserts at all connections.

Couplings

Couplings shall be used to (1) repair split pipe or replace sections of damaged pipe; (2) install or cut-in hydrants or valves into a water main; (3) couple different pipe types; and (4) correct misaligned pipe ends. Couplings shall have a pressure rating of 250 psi or greater. Materials shall be manufactured in accordance with the following:

(1) Center and end rings: ASTM-A536
(2) Gaskets: ASTM D2000
(3) Bolts & Hex Nuts: AWWA C111

Couplings shall be epoxy-coated.

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

Hydrant – Excluding Cost of Hydrant

Hydrants will be provided by the Town of Mansfield for installation by the Contractor and will be installed per the Town of Mansfield Water Regulations and Fee Schedule Policy, dated December 2005. The Contractor shall coordinate with the Mansfield Water Department to identify a place and time where the hydrants can be picked up.

Service Box

The service box shall be a 94 E Buffalo style with a 2½ inch shaft and a slide design. The top and base shall be made of extra heavy cast iron. The top section of the service boxes shall be supplied in 24-inch lengths. The bottom section of the service boxes shall be supplied in 47-inch lengths. The base of the service boxes shall have the following minimum opening dimensions: 2-15/16-inch high by 2-15/16-inch wide. The service boxes shall have a locking type cover with a brass pentagon nut. The cover shall fit flush with the top of the service box. The word "WATER" shall be cast on the cover.

Precast Thrust Blocks

Precast Thrust blocks shall be installed at all locations as noted in and as shown in the plans.

Concrete shall have a minimum strength Class of 3,000 psi meeting the requirements for M4.02.0.

Whenever water pipes can be placed against undisturbed earth, concrete thrust blocks may be installed. The back of thrust blocks shall be placed against undisturbed earth and the sides shall be formed. Felt roofing paper shall be placed to protect pipe joints. Concrete shall not be placed over bolts or nuts, or in a manner which prevents the removal of joints.

Whenever water pipes are installed within fill sections, the Contractor shall use mechanical restrained joint pipe and wedge-type mechanical joint restraints rated for 350 psi.

Pressure Testing

For water mains, the pressure test shall be conducted prior to the new main being flushed clean and disinfected. Run pressure test and leakage test simultaneously in accordance with ANSI/AWWA C600. Test pressure shall not be less than 1.5 times the working pressure at the highest point along the test section. Test pressure shall not exceed pipe or thrust-restraint design pressures. The hydrostatic test shall be of at least 2-hour duration or until such time as the Engineer indicates acceptance of the pipeline. Test pressure shall not vary by more than ±5 psi (35 MPa or 0.35 bar) for the duration of the test. On pipelines where the elevation along the route of construction varies substantially, the Engineer reserves the right to valve off and test portions of the line. On extensive construction jobs, the Engineer reserves the right to require the testing of individual portions of the line as construction proceeds rather than await completion of the entire project in order to undertake a pressure or leakage test.

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

Do not operate valves in either direction at differential pressure exceeding the rated valve working pressure. Use of a test pressure greater than the rated valve pressure can result in trapped test pressure between the gates of a double-disc gate valve. For tests at these pressures, the test setup should include a provision, independent of the valve, to reduce the line pressure to the rated valve pressure on completion of the test. The valve can then be opened enough to equalize the trapped pressure with the line pressure, or fully opened if desired. Test pressure shall not exceed the rated pressure of the valves when the pressure boundary of the test section includes closed, resilient-seated gate valves or butterfly valves.

No pipeline is to be placed under pressure or subjected to hydrostatic pressure until at least 5 days have elapsed after the concrete thrust blocks have been installed. If high early strength concrete is used in the concrete thrust blocks, the hydrostatic pressure can be applied to the main after 2 days have elapsed from time of construction of the thrust blocks. The Contractor will be allowed to complete backfilling as hereinbefore specified, prior to undertaking the leakage and pressure tests. Backfilling prior to conducting tests will be at the option of the Contractor with the exception of intersections, driveways, crosswalks and other such locations where holding open the trench may adversely affect the public. Pipelines may be subjected to hydrostatic pressure and inspected for leakage at any convenient time after the trench has been partially backfilled. Partial backfilling shall consist of filling along the center of the pipe length and leaving the joint open for inspection.

Do not operate any valve or other control device on the existing water system for any purpose. Do not make any tap or cut-in to the existing water system without the approval of the Engineer and unless an authorized representative of the Owner is present. When the Contractor's operations require the adjustment of any hydrant, valves, or other control device on the existing system, the Owner will provide authorized personnel for the purpose of supervising the operation of these control devices. Provide the personnel for the operation of these devices.

Conduct connections to the existing system under the Engineer’s direction. To allow for proper filling, venting, testing, etc., install any corporation stops and/or special fittings which may be required. All such installation will be subject to the Engineer’s approval. Foreign materials left in pipelines during installation often results in valve or hydrant seat leakage during pressure tests. Thorough flushing is recommended prior to a pressure test by partially opening and closing valves and hydrants several times under expected line pressure, with flow velocities adequate to flush foreign material out of the main, valves and hydrants.

On completion of the pipeline or any valved section thereof, fill pipeline with water and test. Draw water from the existing water system under the direction of the Engineer and the Owner. Before applying the specified test pressure, expel air completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high points, install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, close the corporation cocks and apply the test pressure. At the conclusion of the pressure test, either remove and plug or leave in place the corporation cocks at the discretion of the Owner. Slowly fill each valved section of pipe with water and apply the specified test pressure by means of a pump connected to the pipe in a manner satisfactory to the Engineer. Valves shall not be operated in either the opening or closing direction at differential pressures above the rated pressure. The system shall be stabilized at the test pressure before conducting the leakage test.

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

Examine exposed pipes, fittings, valves, hydrants, and joints carefully during the test. Repair or replace any cracked or defective pipe, fittings, valves, hydrants, or joints that are discovered following the pressure tests with sound material and repeat the test until it is satisfactory to the Engineer.

Leakage is defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof to maintain pressure after the pipe has been filled with water and the air has been expelled. Testing shall include all hydrants and hydrant branches. Leakage shall not be measured by a drop in pressure in a test section over a period of time. No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = SD\sqrt{P} / 148{,}000$$

Where:	L	=	allowable leakage, in gallons per hour
	S	=	length of pipe tested in feet
	D	=	nominal diameter of the pipe, in inches
	P	=	average test pressure during the leakage test, in pounds per square inch (gauge)

This formula is based on an allowable leakage of 10.5 gpd/mi/in of nominal diameter at a pressure of 150 psi.

When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gph/in. of nominal valve size will be allowed. When hydrants are in the test section, the test shall be made against the closed main valve in the hydrant. Acceptance will be determined on the basis of allowable leakage. If any test of laid pipe discloses leakage greater than that specified in this section, locate and make approved repairs as necessary until the leakage is within the specified allowance at no additional cost to the Owner. Visible leaks are to be repaired, regardless of the amount of leakage.

Disinfection

Before being placed into service, all new water pipelines shall be chlorinated using the Continuous Feed Method specified in AWWA C651 – Section 4.4.3. The Engineer shall approve the procedure in advance. The Contractor will determine the location of the chlorination and sampling points in the field. The Contractor shall install taps for chlorinating, sampling and expulsion of air and shall uncover, backfill and plug the taps as required. Prior to disinfecting the water main, the main shall be completely filled to remove all air pockets and then flushed to remove particulate. The flushing velocity in the main shall not be less than 2.5 ft/s unless the Engineer and/or Owner determine that the conditions do not permit the required flow to be discharged to waste.

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

TABLE 1
Required Flow to Flush Pipelines (40 psi residential pressure in water main)*

Pipe Diameter (in)	Flow Required to Produce 2.5 ft/s (Approximate) Velocity in Main		Number of 2 1/2 inch Hydrant Outlets
4	100	gpm	1
6	200	gpm	1
8	400	gpm	1
10	600	gpm	1
12	900	gpm	1
16	1600	gpm	2

**AWWA C651, AWWA Standard for Disinfecting Water Mains*

At a point not more than 10 feet downstream from the beginning of the new main, water entering the new main shall receive a dose of chlorine fed at a constant rate such that the water will not have less than 25 mg/L (PPM) free chlorine throughout the entire section of pipe to be chlorinated.

TABLE 2
Chlorine Required to Produce 25-mg/L Concentration in 100 Feet of Pipe – By Diameter*

Pipe Diameter (in)	100% Chlorine (Pounds)	1% Chlorine Solution (Gals.)
4	0.013	0.16
6	0.030	0.36
8	0.054	0.65
10	0.085	1.02
12	0.120	1.44
16	0.217	2.6

**AWWA C651, AWWA Standard for Disinfecting Water Mains*

The chlorinated water is to remain in the new pipeline for at least 24-hours. After a contact time of 24-hours there should be a free chlorine concentration of not less than 10 mg/L (PPM). During this period, proper precautions are to be taken to prevent this chlorinated water from flowing back into the existing system. All valves and hydrants within the treated section shall be operated to ensure disinfection of the appurtenances. The Tablet Method consisting of placing calcium hypochlorite granules or tablets in the water main as it is being installed and then filling the main with potable water and allowing it to set for a contact period is not acceptable. The interior of all pipe, fittings and valves used in making a repair or tie-in shall be swabbed or sprayed with a one percent (1%) hypochlorite solution before they are installed.

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

Following the chlorination period, all treated water shall be flushed from the lines at their extremities and replaced with water from the distribution system. Flushing the main is to be accomplished at as high a velocity as possible consistent with the ability of the Contractor to collect the discharge water for proper disposal. All treated water flushed from the lines shall be disposed of by discharging to the nearest sanitary sewer or by other approved means provided in AWWA C651. Flushing shall be done in strict conformance with all applicable local, state and federal regulations. No discharge of chlorinated water to any storm sewer or natural watercourse will be allowed.

After the 24-hour disinfection period and all chlorine solution has been thoroughly flushed, the bacteriological sampling and analysis of the replacement water may then be performed. Bacteriological sampling shall be made by the Contractor's competent person(s) in full accordance with AWWA C651- Section 5, Bacteriological Tests and under the supervision of the Engineer. Analysis shall be performed by an independent commercial laboratory certified by the State Department of Environmental Protection and U.S. Environmental Protection Agency for analyzing public drinking water supplies. All results shall be provided to the Engineer for review. Two consecutive sets of acceptable samples, taken at least 24-Hours apart are required prior to placing the main into service. Failure of any one of the bacteriological test samples shall require re-chlorination and retesting by the

Contractor. The line shall not be placed in service until the bacteriological requirements of AWWA C651 are met.

METHOD OF MEASUREMENT

Item 303.06 and Item 303.12 will be respectively measured for payment by the FOOT of water pipe installed complete in place. Measurement will be along the axis of the pipe without deduction for the space occupied by valves, excluding however, the length occupied by new fittings.

Item 309. will be measured by the POUND of fittings installed, complete in place. The weight for payment will be the weight stated on the invoice of the supplier or the manufacturer's rated weight as listed in the catalog whichever is the lesser.

Item 336.1 will be measured for payment by the FOOT of 1 Inch Plastic Water Pipe installed, complete in place.

Item 350.06 and Item 350.12 will be respectively measured for payment by the EACH gate and gate box installed, complete in place.

Item 363.1 will be measured for payment by the EACH 1 inch corporation cock installed, complete in place.

Item 371.12 will be measured for payment by the EACH 12 inch coupling installed, complete in place.

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

METHOD OF MEASUREMENT (Continued)

Item 376.1 will be measured for payment by the EACH hydrant – excluding cost of hydrant installed, complete in place.

Item 381. will be measured for payment by the EACH service box installed, complete in place.

Item 384. will be measured for payment by the EACH curb stop installed, complete in place.

Item 903.1 will be measured for payment by the EACH precast thrust block installed, complete in place.

BASIS OF PAYMENT

Items 303.06 and Item 303.12 will be paid for at the respective Contract unit price per FOOT, which prices shall include all labor, material, equipment, and all incidental costs required to complete the work.

Item 309. will be paid for at the Contract unit price per POUND, which price shall include all labor, material, equipment, and all incidental costs required to complete the work.

Item 336.1 will be paid for at the Contract unit price per FOOT, which price shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

Item 350.06 and Item 350.12 will be paid for at the respective Contract unit price per EACH, which prices shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

Item 363.1 will be paid for at the Contract unit price per EACH, which price shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

Item 371.12 will be paid for at the Contract unit price per EACH, which price shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

Item 376.1 will be paid for at the Contract unit price per EACH, which price shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

Item 381. will be paid for at the Contract unit price per EACH, which price shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

ITEMS 303.06, 303.12, 309., 336.1, 350.06, 350.12, 363.1, 371.12, 376.1, 381., 384., and 903.1(Continued)

BASIS OF PAYMENT (Continued)

Item 384. will be paid for at the Contract unit price per EACH, which price shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

Item 903.1 will be paid for at the Contract unit price per EACH, which price shall include all labor, material, transportation, equipment, and all incidental costs required to complete the work.

No separate payment will be made for pipe insulation, but all costs in connection therewith shall be included in the unit prices bid for the respective items.

Removal, transporting and stacking or disposal of the existing materials will be paid for under 315.12 - 12 Inch Water Main Removed and Stacked, 358.1, 376.3, and 381.2.

ITEM 315.12	**12 INCH WATER MAIN REMOVED AND STACKED**	**FOOT**
ITEM 358.1	**GATE BOX REMOVED AND STACKED**	**EACH**
ITEM 376.3	**HYDRANT – REMOVED AND STACKED**	**EACH**
ITEM 381.2	**SERVICE BOX REMOVED AND STACKED**	**EACH**

The work under these Items shall conform to the relevant provision of Subsection 301. Of the Standard Specifications and the following:

Any existing water main, gate box, hydrant, or service box shown on the plans to be removed and stacked shall be removed by the Contractor and stacked at 500-C East Street Mansfield, MA 02048. The Contractor shall coordinate with the Town of Mansfield's Highway Operations Manager, Andy Littig, to schedule drop-off time and location.

The work will include the backfill of the areas where the pipe, gate box, hydrant, or service box is removed with acceptable material as required by the Engineer.

METHOD OF MEASUREMENT

Item 315.12 will be measured for payment by the FOOT along the center axis of the pipe that has been removed and stacked at the identified location.

Item 358.1, Item 376.3, and Item 381.2 will be respectively measured for payment by the EACH unit removed and stacked at the identified location.

BASIS OF PAYMENT

Item 315.12 will be paid for at the Contract unit price per FOOT, which price shall include all excavation, equipment, backfill material, labor, and all incidental costs required to complete the work. Water main that has been damaged as a result of the Contractors activities will not be measured for payment.

Item 358.1, Item 376.3, and Item 381.2 will be paid for at the respective Contract unit price per EACH, which prices shall include all excavation, equipment, backfill material, labor, and all incidental costs required to complete the work.

ITEM 504.2 GRANITE CURB TYPE VA-4 - SPLAYED END EACH

The work under this Item shall conform to the relevant provisions of Subsection 501 of the Standard Specifications and the following:

At locations shown on the plan and as directed by the Engineer, a splayed end curb shall be provided to transition from the vertical curb to sloped face of an existing slope granite edging. The splayed end curb shall be six feet in length with a sawn face which shall match the slope of the existing slope granite edging.

METHOD OF MEASUREMENT

Item 504.2 will be measured for payment by the EACH granite curb type VA-4 – splayed end, complete in place. Each six foot splayed end curb shall constitute a single unit.

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, supplies, and all incidental costs required to complete the work including field verification of the dimensions of the existing edging which this curb is to provide a smooth transition.

ITEM 697.1 SILT SACK EACH

Work under this Item shall conform to the relevant provisions of Subsections 227 and 670 of the Standard Specifications and the following:

The work under this Item includes the furnishing, installation, maintenance and removal of a reusable fabric sack to be installed in drainage structures for the protection of wetlands and other resource areas and the prevention of silt and sediment from the construction site from entering the storm water collection system. Devices shall be ACF Environmental (800)-448-3636; Reed & Graham, Inc. Geosynthetics (888)-381-0800; The BMP Store (800)-644-9223; or approved equal.

CONSTRUCTION

Silt sacks shall be installed in retained existing and proposed catch basins and drop inlets within the project limits and as required by the Resident Engineer.

The silt sack shall be as manufactured to fit the opening of the drainage structure under regular flow conditions, and shall be mounted under the grate. The insert shall be secured from the surface such that the grate can be removed without the insert discharging into the structure. The filter material shall be installed and maintained in accordance with the manufacturer's written literature and as directed by the Engineer.

Silt sacks shall remain in place until the placement of the pavement overlay or top course and the graded areas have become permanently stabilized by vegetative growth. All materials used for the filter fabric will become the property of the Contractor and shall be removed from the site.

The Contractor shall inspect the condition of silt sacks after each rainstorm and during major rain events. Silt sacks shall be cleaned periodically to remove and disposed of accumulated debris as required. Silt sacks, which become damaged during construction operations, shall be repaired or replaced immediately at no additional cost to the Department.

When emptying the silt sack, the Contractor shall take all due care to prevent sediment from entering the structure. Any silt or other debris found in the drainage system at the end of construction shall be removed at the Contractors expense. The silt and sediment from the silt sack shall be legally disposed of offsite. Under no condition shall silt and sediment from the insert be deposited on site and used in construction.

All curb openings shall be blocked to prevent stormwater from bypassing the device.

All debris accumulated in silt sacks shall be handled and disposed of as specified in Subsection 227 of the Standard Specifications

ITEM 697.1 (Continued)

COMPENSATION

Silt sacks will be measured and paid at the Contract unit price per each, complete in place, which price shall include all labor, materials, equipment and incidental costs required to complete the work. No separate payment will be made for removal and disposal of the sediment from the insert, but all costs in connection therewith shall be included in the Contract unit price bid.

ITEM 698.4 GEOTEXTILE FABRIC FOR PERMANENT EROSION CONTROL SQUARE YARD

The work under this Item shall consist of furnishing and installing geotextile fabric for erosion control at stone for pipe ends or as required by the Engineer.

Materials

The geotextile fabric shall conform to the requirements of M9.50.0 for erosion control.

Construction

An underlying Geotextile Fabric, meeting M9.50.0 for Geotextile Fabric for Permanent Erosion Control, shall be placed under the proposed layer of loam borrow seeded with Item 765.551, as shown on the drawings and as required by the Engineer.

The geotextile fabric shall conform to the requirements of AASHTO M 288 for fabric used as Permanent Erosion Control. Construction and installation shall be in accordance with AASHTO M 288 and the following.

Atmospheric exposure of the geotextile fabric to the elements following lay down shall be a maximum of 14 days. If laid under water, the covering riprap shall be placed on the same day as the geotextile.

For seams that are sewn in the field, the Contractor shall provide at least a six feet length of sample sewn seam for the approval of the Engineer before the geotextile is installed. The seams sewn for sampling shall be sewn using the same type of equipment and procedures as will be used for the production seams. If seams are sewn in both the machine and cross machine direction, samples of seams for both directions shall be provided. The seam assembly description shall be submitted by the Contractor along with the seam samples. This description shall include the seam type, stitch type, sewing thread, and stitch density.

The geotextile shall be placed in intimate contact with the soils without wrinkles or folds, and it shall be anchored on a smooth graded surface approved by the Engineer. The geotextile shall be placed in such a manner that placement of the overlaying materials will not excessively stretch or tear the geotextile.

ITEM 698.4 (Continued)

The geotextile shall be placed so that the machine direction is horizontal and runs along the slope. Adjacent geotextile sheets shall be jointed by either sewing or overlapping. Overlapped seams at roll ends shall be overlapped a minimum of one foot except if placed under water. In such instances the overlap shall be a minimum of three feet. Overlaps of adjacent rolls shall be a minimum of 1 foot in all instances.

Care shall be taken during installation so as to avoid damage to the geotextile as a result of the installation process. Should the geotextile be damaged during installation, a geotextile patch shall be placed over the damaged area extending a minimum of three feet beyond the limits of the damage.

Field monitoring shall be performed to verify that the loam placement does not damage the geotextile. Any geotextile damaged during backfill placement shall be replaced as directed by the Engineer, at the Contractor's expense.

METHOD OF MEASUREMENT

Item 698.4 will be measured for payment by the SQUARE YARD of geotextile fabric for erosion control installed, complete in place.

BASIS OF PAYMENT

Item 698.4 will be paid for at the Contract unit price per SQUARE YARD, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

Sewing, vertical edges and overlapping shall be considered incidental to Item 698.4 and no additional compensation made therefore.

ITEM 701.3 STAMPED CEMENT CONCRETE WALK SQUARE YARD

The work under this Item shall conform to the relevant provisions of Subsections 701 and 901 of the Standard Specifications and the following:

Stamped cement concrete pavements shall consist of integrally colored (i.e., incorporated through-out the mix).

Prior to ordering materials, the Contractor shall submit pattern samples and color samples of each cement concrete type to the Town of Mansfield for approval. Samples of other materials to be used and samples for testing shall be submitted as requested by the Engineer.

A 4 foot by 4 foot cured "mockup" of each type of colored concrete pavement shall be constructed for review and approval by the Engineer in consultation with the Town of of Mansfield.

Materials

Concrete mix design shall meet the requirements of Section 701 of the Standard Specifications, ASTM C94, and the following:

Cement: ASTM C150, type 1, Portland cement gray color.

Minimum Cement Content: 5 sacks per cubic yard of concrete.

Slump of concrete shall be consistent throughout Project at 4-inches or less. At no time shall slump exceed 5-inches.

Do not add calcium chloride to mix as it causes mottling and surface discoloration.

Supplemental admixtures shall not be used unless approved by manufacturer of color admixture.

Add air entraining agent to concrete work in amounts of 4-7 percent of total concrete volume, or as otherwise recommended by testing lab.

Add coloring admixture in quantities recommended by admixture manufacturer to achieve selected color. Add colored admixture to the mix according to manufacturer's written instructions in premeasured bags, not by weight of cement content.

Coloring agents for the colored and stamped concrete shall all be supplied by the same manufacturer as part of an integrated system.

ITEM 701.3 (Continued)

COLOR ADMIXTURES for integrally colored concrete shall be a colored, water-reducing, admixture containing no calcium chloride with coloring agents that are lime proof and UV resistant. Colored admixture shall conform to the requirements of ACI 303.1, ASTM C979, ASTM C494, and AASHTO M194.

RELEASE AGENT: shall be a dry blend of chemical powders and color pigments designed as part of the coloring and patterning system to provide the clean release of the texturing tools form the concrete surface.

CURING COMPOUNDS for Colored Concrete: Curing compounds and compounds for curing and sealing are listed on the QCML under "Liquid Membrane-Forming Compounds". the product used should be listed on the QCML. Curing compounds shall meet ASTM C309 and compounds for curing and sealing shall meet ASTM C1315

CONCRETE COLORING SYSTEM COLORS:

Color Admixture and Color Hardener for 'Stamped Concrete Walk' shall be a Brick Red, Deep Red, or other dark red color or other medium to dark color as selected by the Engineer and Town of Mansfield from the manufacturer's standard color range.

Powder Antiquing Release Agent for each type of stamped concrete: Colors shall be as selected by Engineer from approved manufacturer's standard colors.

Joint Sealant colors shall match the colored concrete surface.

STAMP/IMPRINTING PATTERNS:

Stamp pattern for 'STAMPED CEMENT CONCRETE WALK' shall be a Used Brick pattern as indicated on the Drawings, or other brick-like pattern as selected by Engineer in consultation with the Town of Mansfield from the approved manufacturer's standard brick patterns. Pattern templates shall be provided for linear accent strip treatment for borders of the stamped concrete, and for running bond pattern for the field of the large, paved areas, all as indicated on the detail plans on the drawings.

REINFORCING shall be as used for stamped cement concrete pavement and welded wire mesh shall be used for stamped cement concrete walk indicated on the Drawings and in accordance with the Standard Specifications.

Installation

Subgrade preparation and formwork shall be installed to the lines, grades, and depths indicated on the Drawings and in accordance with Subsection 701.

Place integrally colored concrete mix according to the Standard Specifications and the requirements of ACI 301, 302, and 304. Minimize handling to prevent segregation. Do not add water to the mix in the field.

ITEM 701.3 (Continued)

After consolidating and screeding, float concrete to the gradients indicated.

While concrete is still in a plastic state, apply release agent to the troweled surface, and then the surface shall be uniformly stamped/imprinted, applying the pattern as indicated on the drawings and according to the tool manufacturer's instructions. Provide a uniform pattern and uniform depth of stamping. Touch-up pattern and finish edges with hand tools as necessary.

Immediately after finishing concrete, apply curing and sealing compound for integrally colored concrete according to manufacturer's instructions using manufacturer's recommended application techniques. Apply curing and sealing compound at consistent time for each pour to maintain close color consistency. Curing compound shall be same color as the colored concrete and supplied by same manufacturer of the colored admixture.

Precautions shall be taken in hot weather to prevent plastic cracking resulting from excessively rapid drying at surface as described in CIP 5 *Plastic Shrinkage Cracking* published by the National Ready Mixed Concrete Association. Do not cover concrete with plastic sheeting.

Minor variations in appearance of colored concrete, which are similar to natural variations in color and appearance of uncolored concrete, are acceptable.

METHOD OF MEASUREMENT

Item 701.3 will be measured for payment by the SQUARE YARD of stamped cement concrete installed, complete in place.

BASIS OF PAYMENT

Item 701.3 will be paid for at the Contract unit price per SQUARE YARD, which price shall include all labor, materials, equipment, and all incidental costs required to complete the work.

No separate payment will be made for the “mock up”, joint sealer or backer rods, but all costs in connection therewith shall be included in the unit price bid.

Gravel for base material will be paid for separately under Gravel Borrow, Item 151.

ITEM 705.1 FLAGSTONE WALK REMOVED AND RESET SQUARE YARD

The work under this Item shall conform to the relevant provisions of Subsection 701 of the Standard Specifications and the following:

The work under this Item shall include the removal and resetting or relaying of privately owned walks at the back of the proposed sidewalk in order to transition the existing walkways to the proposed sidewalk and accommodate any grade changes resulting from the proposed roadway and sidewalk construction. Lines and grades shall be consistent with the new sidewalk construction as shown on the plans and established by the Engineer.

The flagstone walks shall be reused where possible. Reset flagstone walks shall be similar in appearance to the walks which are removed or which abut a reconstructed walk. If existing flagstones are broken or if new units are necessary to reset the walks they shall be of the same color and texture as the existing. All existing units shall be thoroughly cleaned before being set. The units shall be of the same color and texture as the existing. All walks and/or driveways shall be laid on an 8" gravel foundation. If the existing base is of another material, that material may be used subject to the approval of the Engineer.

Cement mortar used to reset the flagstones shall conform to Material Specification M4.02.15. It is the intention of this special provision that the reset flagstone walks at the new locations shall conform as close as possible in every detail to the existing walks.

METHOD OF MEASUREMENT

Item 705.1 will be measured for payment by the SQUARE YARD of flagstone walk removed and reset, complete in place.

BASIS OF PAYMENT

Item 705.1 will be paid for at the Contract unit price per SQUARE YARD, which price shall include all labor, material, equipment, and all incidental costs required to complete the work.

No separate payment will be made for excavation, removing, resetting or furnishing and installing flagstones, or cement mortar, but all costs in connection therewith shall be included in the unit price bid.

New flagstone necessary to reconstruct walkways will be considered incidental to the work.

Gravel for base material will be paid for separately under Gravel Borrow, Item 151.

Compaction of subgrade will be paid for separately under Fine Grading and Compacting, Item 170.

ITEM 706.1 BRICK WALK REMOVED AND RELAID SQUARE YARD

The work under this Item shall conform to the relevant special provisions of Subsection 701 of the Standard Specifications and the following:

The work shall include removal and relaying of existing brick walkways.

The Contractor shall exercise caution when removing and stacking the existing brick. The Contractor shall replace all damaged brick, caused by the Contractor's negligence, at no additional cost to the owner.

Set brick shall have tight, non-mortared joints that shall be swept filled with stone dust after installation. The pattern shall match the pattern of the existing brick walk.

Brick shall be set on a 1-1/4 Inch hot mix asphalt setting bed, conforming to the following requirements: Asphalt cement for the bituminous setting bed shall comply with ASTM D3381 requirements, viscosity grade A.C.10 or A.C.20. The fine aggregate for the bituminous setting bed shall be clean, hard sand with durable particles and shall be free from adherent coating, lumps of clay, alkali salts, and organic matter. It shall be uniformly graded from "coarse" to "fine" and all passing the No. 4 sieve and comply with these gradation requirements when tested in accordance with the standard method of test for sieve of screen analysis of fine and course aggregated ASTM C136-81. The dried fine aggregate shall be combined with hot asphalt cement, and the mix shall be heated to approximately 300ºF at an asphalt plant. The approximate proportion of materials shall be seven percent (7%) asphalt cement and ninety-three (93%) fine aggregate. Each tone shall be apportioned by weight in the approximate ratio of 145lbs asphalt to 1,850lbs sand. The Contractor shall determine the exact proportions to produce the best possible mixture for construction of the bituminous setting bed to meet construction requirements.

The HMA setting bed shall be placed over 8 inches of compacted gravel borrow, type b, conforming to the requirements under Item 151.

METHOD OF MEASUREMENT

Item 706.1 will be measured for payment by the SQUARE YARD of brick walk removed and relaid, complete in place.

BASIS OF PAYMENT

Item 706.1 will be paid for at the Contract unit price per SQUARE YARD, which price shall include all labor, materials, equipment, hot mix asphalt setting bed, adhesive, stone dust, samples, and all incidental costs required to complete the work.

Gravel Borrow will be measured and paid for under Item 151.

Compaction of subgrade will be paid for separately under Fine Grading and Compacting, Item 170.

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. NPDES STORM WATER POLLUTION PREVENTION PLAN LUMP SUM

This Item addresses the preparation and implementation of a Storm Water Pollution Prevention Plan required by the National Pollutant Discharge Elimination System (NPDES) and applicable Construction General Permit (CGP) issued by the U.S. Environmental Protection Agency (EPA).

Pursuant to the Federal Clean Water Act, construction activities which disturb one acre or more are required to apply to the EPA for coverage under the NPDES General Permit for Storm Water Discharges from Construction Activities. The Contractor shall be fully responsible for compliance with the most recently issued CGP and any subsequent revisions. Should a fine or damages be assessed against it, or MassDOT, as a result of a local, state, or federal enforcement action due to non-compliance with the CGP, the Contractor shall take full responsibility.

The NPDES CGP requires the submission of a Notice of Intent (NOI) to the EPA prior to the start of construction (defined as any activity which disturbs land, including clearing and grubbing). There is a fourteen (14) day review period commencing from the date on which EPA enters the Notice into their database. Based on the review of the NOI, EPA may require additional information, including but not limited to, the submission of the Storm Water Pollution Prevention Plan (SWPPP) for review. Work may not commence on the project until final authorization has been granted by EPA. Any additional time required by EPA for review of submittals will not constitute a basis for claim of delay.

In addition, if the project discharges to an Outstanding Resource Water, vernal pool, or is within a coastal ACEC as identified by the Massachusetts Department of Environmental Protection (DEP), a separate notification to DEP is required. DEP may also require submission of the Storm Water Pollution Prevention Plan for review and approval. Filing fees associated with the notification to DEP and, if required, the SWPPP filing to DEP shall be paid by the Contractor.

The CGP also requires the preparation and implementation of a SWPPP in accordance with the afore-mentioned statutes and regulations. The Plan will include the CGP conditions and detailed descriptions of controls of erosion and sedimentation to be implemented during construction. The contractor shall prepare the SWPPP and update it as necessary. The Contractor shall submit the Plan to the Engineer for approval at least four (4) weeks prior to any site activities. It is the responsibility of the Contractor to comply with the CGP conditions and the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Corps of Engineers Section 404 Permit and other environmental permits applicable to the project and to include in the SWPPP the methods and means necessary to comply with applicable conditions of said permits.

It is the responsibility of the Contractor to complete the SWPPP in accordance with the EPA CGP, provide all information required, and obtain any and all certifications as required by the CGP. Any amendments to the SWPPP required by site conditions, schedule changes, revised work, regulations, construction methodologies, and the like are the responsibility of the Contractor. Amendments will require the approval of the Engineer prior to implementation.

ITEM 756. (Continued)

In addition to the CGP requirements for inspections, MassDOT requires inspection of all erosion controls and site conditions on a weekly basis. Inspections are also required at portions of sites that discharge to sediment or nutrient impaired or high quality waters per the CGP when each incidence of rainfall exceeding 0.25 inches in twenty-four hours or after snowmelt discharge from a storm event that produces 3.25 inches or more of snow within twenty-four hours occurs. The CGP requires that inspections be performed by a qualified individual as outlined in the CGP. MassDOT requires proof of completion of a 4 hour minimum sedimentation and erosion control training class current to the latest CGP. This individual can be, but not limited to, someone that is either a certified inspector, certified professional, or certified storm water inspector. The documentation shall be included as an appendix in the SWPPP. The inspector's qualifications shall be submitted to the Engineer for approval prior to beginning any work. This individual shall be on-site during construction to perform these inspections. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector. Written weekly inspection forms, storm event inspection forms, and Monthly Summary Reports must be completed and provided to the Engineer. Monthly Summary Reports must include a summary of construction activities undertaken during the reporting period, general site conditions, erosion control maintenance and corrective actions taken, the anticipated schedule of construction activities for the next reporting period, any SWPPP amendments, and representative photographs.

The Contractor is responsible for preparation of the Plan, all SWPPP certifications, inspections, reports and any and all corrective actions necessary to comply with the provisions of the CGP. The Standard Specifications require adequate erosion control for the duration of the Contract. All control measures must be properly selected, installed, and maintained in accordance with manufacturer specifications and good engineering practices. 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. Contractor must maintain all control measures and other protective measures in effective operating conditions and shall consider replacement of erosion controls for each construction season.

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 SWPPP.

This Item addresses acceptable completion of the SWPPP, any revisions/amendments required during construction, preparation of monthly reports and Flood Contingency Plan. In addition, any erosion controls beyond those specified in bid items which are selected by the

ITEM 756. (Continued)

Contractor to facilitate and/or address the Contractor's schedule, methods and prosecution of the work shall be considered incidental to this Item.

The CGP provides specific requirements for temporary and final stabilization. This shall be incorporated into the project schedule. The permit defines specific deadline requirements for Initial Stabilization ("immediately", i.e., no later than the end of the next work day following the day when earth-disturbing activities have temporarily or permanently ceased) and for Complete Stabilization Activities (no later than 14 calendar days after the initiation of stabilization). Stabilization criteria for vegetative and non-vegetative measures are provided in the CGP.

The CGP requires the submission of a Notice of Termination (NOT) from all operators when final stabilization has been achieved, as well as removal and proper disposal of all construction materials, waste and waste handling devices, removal of all equipment and construction vehicles, removal of all temporary stormwater controls, etc. Approval of final stabilization by the Engineer and confirmation of submission of the NOT will be required prior to submission of the Resident Engineer's Final Estimate. The permittee shall use EPA's website to prepare and submit the NOT.

BASIS OF PAYMENT

Item 756 will be paid for at the Contract unit price Lump Sum, which price shall include all labor, materials, equipment, SWPPP & Flood Contingency Plan preparation, revisions/addenda during construction, monthly reports, filing fees, and all incidental costs required to complete the work.

Payment of 50% of the Lump Sum price of this Item will be made upon acceptance of the NPDES Stormwater Pollution Prevention Plan & Flood Contingency Plan.

Payment of 40% of the Lump Sum price of this Item will be paid in equal monthly installments distributed across the time remaining in the accepted baseline schedule until substantial completion.

The remaining 10% of the Lump Sum price of this Item will be paid following accepted submission of a Notice of Termination (NOT) when final stabilization has been achieved.

ITEM 765.551 **WETLAND SEED MIX - FACW MEADOW MIX** **SQUARE YARD**

The work under this Item shall conform to the relevant provisions of Subsection 765 of the Standard Specifications and the following:

The work shall consist of planting and establishing a stand of grass in the areas shown on the plans or as required by the Engineer. For the purposes of these specifications, the term "grass" shall apply to all the forbs, grasses, sedges, and rushes included in the materials.

All seeding shall be done by a company having a minimum of five years of experience with native grass establishment. Prior to beginning work, the seeding Contractor shall furnish proof of qualifications to the Engineer for approval. Proof of qualifications includes, if requested, providing documentation (photos and contacts) to demonstrate knowledge and expertise with native seeding and proof of having completed successful native seeding projects.

Seeding shall be done within 48 hours of placement of loam and final grading. Mulch for seed shall be Compost Topdressing or hydromulch as specified below and shall be incidental to this Item.

SEEDING SEASON

Seeding seasons shall be April 1 through May 15 and October 1 through December 1 for dormant seeding. ***Seeding that occurs outside of these periods, shall be increased by 50%.***

MATERIALS

Seed

Samples and Submittals

1) Certificate of Materials. 60 days prior to ordering, the Contractor shall submit to the Engineer the manufacturer or supplier's notarized Certificate of Materials. This document shall not be used as proof of purchase, proof of material delivered, or proof of material seeded, but simply to verify supplier availability of seed listed on the date certified. The species listed shall match those specified on the plans or herein, however, cultivars may vary due to availability. Substantial substitutions or changes in the mix from that specified on the plans or herein shall be approved by MassDOT Landscape Design Section.

ITEM 765.551 (Continued)

2) Seed Tag Certification. All seed lots have a seed analysis tag as required by State and Federal law. The contractor shall submit seed tags for each bag of seed used on the project site or ensure that each tag is photo documented by the Engineer. Number of tags shall match number of bags sent by the supplier to meet rate of Pure Live Seed specified on the plans. Tag must include: kind and variety of seed; lot number; origin of seed; net weight; % purity; germination; dormant seed; germination test date; inert matter; weed, noxious and other crop seed; and name and address of company responsible for the analysis. Seeding may be considered unacceptable for payment if no tags are submitted.

3) Certificate of Compliance. Prior to payment, contractor shall submit a bill of lading or a signed, dated and notarized Certificate of Compliance from the Supplier that serves as proof of purchase. This document shall include kind and variety of seed, lot number, net weight shipped, date of sale, invoice number under which seed was purchased, and name and address of Supplier or Manufacturer. All information must be included on the notarized form, including lot number and net weight shipped for specified job. This information shall match Seed Tag Certification and quantity of seed applied on the job. Seeding may be considered unacceptable for payment if information is incomplete.

4) Seed Sample. Contractor may be asked, prior to seeding, to submit a seed sample for testing.

Quantities specified are Pure Live Seed (PLS). Greater quantities of ordered seed may be required to achieve actual specified seeding rates. Pure Live Seed is defined as the fraction of pure seed species within the mix that, by standard seed testing practices, will germinate. This is determined by multiplying the percent of seed purity by the percent of seed germination.

Seed mix shall be a custom blend as shown on the plans or shall be as specified below. Seed cultivars shall be those that are as regional to New England or the local ecotype as possible.

Any species substitutions shall be with a species having similar characteristics and native to New England. Substantial changes in the mix shall be approved by MassDOT Landscape Design Section.

ITEM 765.551 (Continued)

Item 765.551 Wetland Mix – FACW Meadow Mix

Botanical Name	Common Name	% PLS by Weight
Grass		
Carex vulpinoidea	Fox Sedge	26.00%
Elymus riparius	Riverbank Wild Rye	23.00%
Carex lurida	Shallow Sedge	17.00%
Carex lupulina	Hop Sedge	8.00%
Scirpus atrovirens	Green Bulrush	3.00%
Juncus effusus	Soft Rush	2.50%
Cinna arundinacea	Sweet Woodreed	2.00%
Carex comosa	Bearded Sedge	2.00%
Glyceria canadensis	Manna Grass	1.00%
Scirpus cyperinus	Woolgrass	1.00%
Juncus tenuis	Path Rush	0.50%
		86.00%
Herb/Forb		
Verbena hastata	Blue Vervain	4.00%
Asclepias incarnata	Swamp Milkweed	2.00%
Aster prenanthoides	Zig Zag Aster	1.00%
Sisyrinchium angustifolium	Narrowleaf blue-eyed grass	1.00%
Eupatorium maculatum	Joe-pye Weed	1.00%
Aster puniceus	Aster - Swamp	1.00%
Aster novae-angliae	New England Aster	1.00%
Vernonia noveboracensis	New York Ironweed	1.00%
Eupatorium perfoliatum	Boneset	1.00%
Aster umbellatus	Flat Topped White Aster	0.50%
Mimulus ringens	Monkey Flower	0.50%
		14.00%
		100.00%

Seeding Rate:
Species ecotype shall be as native to New England region as possible. Apply this mix at 20 lbs PLS/acre.

ITEM 765.551 (Continued)

Fertilizer

No fertilizers shall be applied.

Water

Water, including hose and all other watering equipment required for the work, shall be furnished by the Contractor to the site at no additional cost. Water shall be suitable for irrigation and free from ingredients harmful to plant life. All plants injured or work damaged due to the lack of water or the use of too much water shall be the Contractor's responsibility to correct.

Mulch

Mulch for seeding and topdressing shall be incidental to this Item. Mulch shall be:

- Compost Topdressing meeting the material and submittal requirements of Item 751.72, Compost Topdressing and as specified below under Seeding and Mulching.
  OR
- Hydromulch per the manufacturer's recommendation. Mulch for hydroseeding shall be wood fiber only.

Photo Documentation

Contractor shall submit photo documentation to the Engineer and Landscape Design Section. Each photo shall be date stamped. Photos shall be submitted after the following stages of construction:

- Soil preparation
- Seed and hydromulch/compost topdressing
- Germination
- Grass establishment after one full growing season (growing season is June-September)

CONSTRUCTION

Surface Preparation

Soil preparation and seeding shall occur only when the bed is in a friable condition, not muddy or hard. Bare soils shall be raked to remove large stiff clods, lumps, brush, roots, stumps, litter and other foreign matter. Ruts and depressions shall be filled with additional loam or compost and the soil shall be re-graded to a smooth and even finish corresponding to the required grades.

When seeding over existing or compacted soil, surface will be prepared by raking or tracking to a depth of 2 inches prior to seeding and prior to Compost Topdressing (when applicable).

Surface preparation shall be compensated for under Item 751. Loam For Roadsides.

ITEM 765.551 (Continued)

Surface preparation shall be approved by the Engineer prior to seeding.

Seeding over Various Substrates

Loam: Seeding shall occur within 48 hours of site preparation to prevent loss of topsoil. Seeding shall be hydroseeding or broadcast as specified below.

Compost Topdressing: Compost Topdressing shall be applied as specified under that item. Seed should be broadcast at the same time as compost application to ensure a thin cover of compost over seed. ***When seeding is done after application of Compost Topsoil the rate shall be increased by 50% and area shall be hydromulched.***

Seeding Methods

No seeding or surface preparation work shall be done if soils are muddy or dry and compacted.

Broadcast Seeding: Seed shall be broadcast spread using a cyclone or whirlwind seeder or hand broadcast. Small or light-seeded species such as bluestem may be mixed with approved filler (e.g., sawdust, rice, kitty litter, or clean damp sand) to achieve an even distribution. Broadcast seeding shall be undertaken in two separate passes at ninety degrees to each other. One-half the seeding rate shall be applied in each direction.

To ensure seed to soil contact with broadcasting of seed, seed shall be tracked or rolled with a weighted roller.

All broadcast seeding shall be followed by hydromulching unless seeding is done as part of Compost Topdressing and as specified above.

Hydroseeding shall include hydromulch.

Hydromulching shall be per the Standard Specifications and per the manufacturer's directions.

After seeding and mulching, water seeded areas to moisten soil to a depth of at least 2 inches.

Seed and Grass Care

During Germination: Contractor shall care for seeded areas as determined necessary by the Engineer and the MassDOT Landscape Architect. Care may include irrigation and weed control as necessary for germination.

ITEM 765.551 (Continued)

During Establishment: Following germination of seeded species, the contractor shall maintain the stand of grasses to ensure healthy growth. Work shall include mowing or weed-whacking for weed control, irrigation if necessary, and monitoring for invasive plants.

Watering shall provide uniform coverage without eroding soil or grassed surfaces. Treatment of invasive plants shall be per the direction of MassDOT Landscape Architect.

The Contractor shall provide all labor, equipment, materials, and water required for establishment. Contractor shall water all seeded areas as necessary to a depth of 2 inches or greater.

Over-seeding

If there are areas of bare ground greater than 2-3 feet in diameter, these areas shall be over-seeded with the specified mix. Over-seeding application rates and methods shall be the same as those listed above. After seeding, areas shall be mulched with straw mulch or ¼ - ½ inch Compost Topsoil and watered with a fine mist to moisten soil to a depth of at least 2 inches.

Areas that are invaded by weeds shall be mowed as low as possible and over-seeded as directed. Soil that is compacted shall be raked or roughened prior to over-seeding. Following over-seeding, soil shall be lightly tamped to ensure seed to soil contact.

Over-seeding and mulch for over-seeding shall be incidental to this Item.

ESTABLISHMENT

Native upland grasses and forbs will not look like turf grass. Many of the native grasses are bunch type grasses and will not form a uniform growth or have a sod-type appearance. However, seeded area shall show general uniform growth of the seeded species throughout the area. Areas with significant gaps of bare soil, generally greater than 2-3 feet in diameter, will require over-seeding.

A well-established stand of grasses at the end of one full growing season (June-September), as determined by the Engineer and the MassDOT Landscape Architect, will be required for acceptance. At least 80-90 percent of the grass established shall be the seeded species and any invasive or aggressive weeds (mugwort, ragweed, or knapweed) shall have been cut or otherwise managed.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 765.551 will be measured for payment by the square yard after one full growing season (June-September) has elapsed between seed application and inspection and upon approval of establishment by the Engineer and the MassDOT Landscape Architect.

ITEM 765.551 (Continued)

Item 765.551 will be paid for at the Contract unit price per Square Yard upon receipt of required submittals as specified above and upon approval of established stand of grass as specified above.

This price shall include seeding, rolling to ensure seed-to-soil contact, care during germination and establishment, irrigation, mulching, over-seeding, labor, materials, equipment, photo documentation, and all incidental costs required to complete the work. Site preparation, including raking, tilling, removal of debris and stones, and other work to the prepare site for seeding shall be compensated for under Item 751, Loam for Roadsides.

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 Subsection 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 required by the Engineer at the Contractors expense.

ITEM 767.9 JUTE MESH SQUARE YARD

The work under this Item shall conform to the relevant provisions of Section 700 of the Standard Specifications and the following.

The work under this Item shall consist of furnishing and installing jute mesh fabric to prevent soil erosion. Jute mesh shall be placed over all areas of exposed soil in locations shown on the plans or as required by the Engineer.

MATERIALS

Jute netting or similar material shall be new, unused, undyed, and unbleached 100% biodegradable yarn (no polypropylene) and of uniform plain weave. The materials should weigh approximately 1.0 (+/- 5%) pounds per linear yard (assuming a 4-foot width).

Shall meet the following minimum requirements:

Open Area:	70-75%
Mesh Size:	approximately 1/2 inch with an open area of 60-65%.
Roll Weight:	approximately 1.0 (+/- 5%) pounds per linear yard
Warp Ends:	78 per linear yard
Weft Ends:	41 per linear yard
Recommended flow:	6 fps (1.8 m/s)
Functional Longevity:	6-9 months

Anchoring devices shall be 11-gauge steel staples 6-inch minimum length. In loose soils the length of the staples shall be 9-inches.

For areas that will be routinely mowed anchoring devices shall consist of minimum 8” wooden stakes. Longer stakes shall be used where loose soils or other conditions obligate, as required by the Engineer.

CONSTRUCTION METHODS

Area shall be seeded prior to installation of jute netting.

Installation shall be such as to ensure continuous contact with soil without folds or wrinkles. Jute netting shall be laid such that upslope fabric is placed over lower slope fabric by a minimum of 3 feet. Adjoining rolls shall be overlapped a minimum 6 inches. The netting shall extend beyond at least 1 foot beyond the edge of the seeded area.

The Contractor shall bury the ends of the jute netting 6-8 inches in anchor trenches at top and bottom of slopes.

ITEM 767.9(Continued)

Jute netting shall be anchored in place with vertically driven metal staples. The staples shall be driven in until their tops are flush with the soil. Staples shall be placed at 12-inch intervals along the top of a slope and in staggered courses along the face of the slope to achieve a minimum of 3 staples per square yard, or at manufacturer's recommendations for the given site conditions.

Contractor shall reseed all trenched and otherwise disturbed areas with specified seed mix. The Contractor shall maintain the jute netting and make satisfactory repairs of any areas damaged until acceptance of seed establishment.

METHOD OF MEASUREMENT

Jute Mesh will be measured by the number of Square Yards complete in place, including anchoring, as measured across the surface of grade and does not include buried or overlapped portions. The quantity measured for payment shall not exceed that shown on the plans or as directed by the Engineer.

Mesh that becomes loose or that is not otherwise functioning to stabilize soil shall be repaired and new or additional jute matting installed as required at the Contractor's expense. Soil erosion shall be repaired, and area shall be raked and reseeded with the original specified mix as required by the Engineer at the Contractors expense.

BASIS OF PAYMENT

Item 767.9 will be paid for at the Contract unit price per Square Yard, which price shall include all labor, materials, equipment, trenching, placing, and stapling of jute fabric, reseeding of trenched and disturbed areas, and all incidental costs required to complete the work.

ITEM 816.01 TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1 LUMP SUM

ITEM 816.02 TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 2 LUMP SUM

Work under these Items shall conform to the relevant provisions of Section 800 of the Standard Specifications, and the following:

The work shall include the furnishing and installation of part or all of the following items: modify local traffic signal controller and cabinet assembly; video detection camera; relocation of existing RED signal head sign assembly/post on proposed foundation; radio repeater(s); all cable and wiring; equipment grounding and bonding; and all other equipment, materials and incidental costs necessary to provide a complete, fully operational traffic control signal systems as specific herein and as shown on the plans. The location is:

- Route 140 at School Street (Item 816.01)
- West Street at School Street/ Copeland Drive (Item 816.02)

Shop Drawings

Within 30 days following execution of the Contract, the Contractor shall submit shop drawings for the video detection camera and radio repeater, if required, a list of equipment, and manufacturer's equipment specifications to the Engineer in accordance with the relevant provisions of Subsection 815.20.

No work shall be commenced by the Contractor until approval of the shop drawings and manufacturer's data has been received in writing from the Engineer. Approval of these drawings will be general in character and shall not relieve the Contractor from the responsibility of, or the necessity of, furnishing materials and workmanship conforming to the plans and specifications.

The Contractor shall deliver to the Engineer a certificate of compliance with the manufacturer for all materials purchased from the manufacturer.

Existing Installation

Existing signal equipment, conduit and pullboxes shall be retained at these locations as indicated on the plans and in accordance with the relevant provision of Subsection 815.65.

Under Items 816.01 and 816.02, the existing installations shall be maintained in operation throughout the construction period and until the prop video detection camera and the relocated RED signal head sign assembly is ready for operation. The Contractor is to coordinate with the Engineer and Town when the existing loop detectors become inoperable and when the new video detection camera is installed and is functioning. Once construction is completed and the new video detection camera is in operation, old cable and unusable materials shall be disposed of by the Contractor.

ITEMS 816.01, 816.02 (Continued)

Modifying Existing Controller and Cabinet

Under Item 816.02 the Contractor shall modify the existing traffic signal controller and cabinet assembly to implement the proposed video detection and timing modifications as shown on the plans.

Vehicle Detection Camera (Item 816.02 only)

The vehicle detection camera shall detect vehicles on a roadway by processing thermal images sent from a sensor to a detection module with detector outputs that can be received by the traffic signal controller.

General Description - The thermal vehicle detection system supplied shall meet the following minimum requirements:

a. The detection system shall be non-intrusive (i.e. above ground) and shall consist of:
   - Mounting bracket
   - Thermal traffic sensor
   - A detection module with video detection software
   - Communications cable

b. The thermal traffic sensor and detection module shall be integrated in one housing without the need for any additional detection software outside of this housing. By using one or more predefined detection zones, the detection software shall have the ability to detect vehicles and bicycles on multiple lanes.

c. The detection software shall have the ability to differentiate between vehicles and bicycles with a high level of accuracy and allow for separate outputs to be used for vehicle presence and bicycle presence.

d. The detection system shall generate separate vehicle and bicycle presence events. The generated vehicle and bicycle presence events will be sent to a traffic signal controller.

e. The operator shall be able to view the streaming video images of the detection system using a standard web browser such as Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, or equal.

f. The thermal traffic sensor shall have various focal length options to allow vehicle presence detection on short distance (closer than 80 feet), medium distance (between 50 and 250 feet) and long distance (up to 400 feet).

g. The video detection module is capable of operating at 24VAC/DC, provided to the sensor via the interface board. Its power consumption will not exceed 5W (or 210mA at 24V) during regular operations.

ITEMS 816.01, 816.02 (Continued)

h. The total mass of the bracket, housing, camera and video detection module (excl. cabling) shall be less than 2.5 pounds.

i. The interface board is used for system configuration, detection verification, detection output generation and error output generation. It will be an EDGE card for NEMA TS-1 & TS2 cabinets. It allows connection to up to-8 video detection modules and has an Ethernet connection to communicate with a PC, and a USB port.

j. The interface board provides 4 contact closures (detection outputs) or serial output state information (SDLC, via SDLC module) for the traffic light controller. Also, an error output is present.

k. Communication between the interface board and the different cameras shall be established over BPL (Broadband over Power Lines), limiting the number of wires per camera to maximum 3 (BPL+, BPL-, Ground).

Vehicle presence detection and zone occupancy measurement:

a. In one or more predefined virtual vehicle presence detection zones, the video detection software will detect both moving and stopped vehicles on multiple lanes when mounted 4-12m above the street's surface, taking into account optical occlusion constraints.

b. In total, it must be possible to put 24 virtual detection zones in the image. Logical functions (AND, OR) shall be used to link multiple virtual detection zones to a single output. Detection must be in any direction through the image and in more than 1 direction. Configuring an extend and/or delay time for detection must be possible.

c. The zone occupancy information shall be provided via contact closures, where the number of pulses indicate the count and the length of the pulses indicate the zone occupancy.

d. zone occupancy data generation via TCP/IP and storage via on-board memory shall be possible.

Ttraffic flow monitoring - In one or more predefined virtual detection zones, the video detection software will monitor the traffic flow, when mounted 20-40 feet above the street's surface, taking into account optical occlusion constraints. In total, it must be possible to put 4 virtual detection zones in the image.

The sensor will support the following functionalities:

- Traffic flow monitoring with 5 levels of traffic flow, to be provided via contact closures or TCP/IP:
  - Fluent traffic
  - Dense traffic
  - Delayed traffic
  - Congested traffic
  - Stop & Go traffic

ITEMS 816.01, 816.02 (Continued)

For data, the sensor is able to work as a stand-alone system, in which case it is possible to connect a portable PC directly to the detection module interface board using the TCP/IP connection. In this setup, the detection module will store the gathered traffic data and traffic events in its internal memory. Data is downloaded by connecting a portable PC to the detection module interface TCP/IP port.

The sensor can also be used in combination with a fixed link that provides the captured data and/or events to a remote traffic management system for immediate interpretation. In this setup the detector shall be connected directly to a network using the TCP/IP connection on the interface board.

The Contractor shall be responsible for the proper programming of the detection system, orientation of the thermal traffic sensor and all other work necessary to provide a complete and operating thermal vehicle detection system. The Contractor may be required to field adjust the location of the sensor and/or detection zones in the presence of the Engineer to properly detect approaching vehicles.

Hardware - The detector bracket allows horizontal and vertical mounting and is made of fiber reinforced polyamide (with an aluminum tube). To attach the housing on existing or new infrastructure, it is sufficient to use 2 bolts or 2 stainless steel bands.

Software - The system is configured using dedicated software on a PC. The software can run on Windows XP, Windows Vista, Windows 7 and Windows 8. The program must be user-friendly and shall use a JPEG snapshot of the sensor image to place the virtual detection zones on the road's surface in a simple and accurate way. It shall be possible to set up, add, change and delete up to 24 direction-sensitive vehicle presence detection zones and 4 direction-sensitive bicycle presence detection zones. In the setup GUI, the user must be able to define various parameters such as integration interval and differentiate between vehicle and bicycle zones. It should be possible to change the configuration without disrupting normal operation. It shall be possible to view, record and playback video sequences by using dedicated software (e.g. VLC Media Player) that can be installed on a portable PC.

Warranty, Maintenance and Support

a. The traffic sensor engine shall be warranted by its supplier or Manufacturer for a minimum of ten (10) years.

b. The traffic vehicle detection system shall be warranted by its supplier or Manufacturer for a minimum of two (2) years.

c. During the warranty period, the supplier or Manufacturer shall provide technical support by telephone during normal business hours and request for support by telephone shall be answered by factory certified personnel within one (1) hour.

d. During the warranty period, certified personnel from the supplier or Manufacturer shall be on site within seventy-two (72) hours if required.

ITEMS 816.01, 816.02 (Continued)

Relocation of RED Signal Ahead Device (Item 816.01 only)

Under Item 816.01, the existing solar-powered RED Signal Ahead warning assembly to be relocated as shown on the plans, or as directed by the Engineer, on a proposed foundation. Contractor shall verify line of sight between point-to-point radio devices and provide repeater(s) from the same manufacturer as needed to retain communications to the traffic signal controller at Route 140/ School Street.

BASIS OF PAYMENT

Items 816.01 and 816.02 will be paid for at the respective Contract LUMP SUM prices, which prices shall include all labor, material, equipment, shop drawings, submittals, and all incidental costs required to complete the work.

ITEM 852.11 TEMPORARY PEDESTRIAN BARRICADE FOOT

ITEM 852.12 TEMPORARY PEDESTRIAN CURB RAMP EACH

Work under these Items consists of furnishing, deploying, maintaining in proper operating conditions, and removing temporary pedestrian barricades and temporary pedestrian ramps as part of a Temporary Pedestrian Access Route (TPAR) in order to guide pedestrians around a fully- or partially-closed sidewalk. These devices are intended to prevent pedestrians from entering the work area and to prevent pedestrians from inadvertently entering the vehicle travel lane by providing visual and physical separation between each space.

Materials

The Temporary Pedestrian Barricade shall have a continuous bottom rail or edge no more than two (2) inches above the ground and eight (8) inches in height (minimum) to accommodate cane users, have a smooth and continuous hand railing along the top edge no less than 32 inches above the ground and not obstruct or project into the pedestrian path of travel. Barricade walls shall be nearly vertical and generally within the same plane.

If exposed to traffic, Temporary Pedestrian Barricades shall be crashworthy.

The Temporary Pedestrian Curb Ramp shall provide a 48 inch minimum width, with a firm, stable, and non-slip surface. Protective edging with a two (2) inch minimum height shall be installed when the curb ramp or landing platform has a vertical drop of six (6) inches or greater.

The Temporary Pedestrian Curb Ramp walkway and landing area surface shall be of a solid, continuous, contrasting color abutting up to the existing sidewalk.

If a Temporary Pedestrian Curb Ramp leads to a crosswalk, a detectable warning pad must be used at the base of the ramp; if it leads to a protected path that does not conflict with vehicular traffic then a detectable pad shall not be used.

Construction Methods

The Temporary Pedestrian Barricade shall be placed in an area that will provide pedestrians with a TPAR on a smooth, continuous hard surface for its entirety. The geometry and alignment of the facility shall meet the applicable requirements of the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities" and the Massachusetts Architectural Access Board.

The recommended width of the TPAR is 60 inches, but if constraints exist a minimum clear width of 48 inches shall be provided along its entirety. If a 60 inch width cannot be accommodated in full, a 60 inch by 60 inch passing space shall be provided every 200 feet or less along the TPAR.

Turning areas shall be 60 inches by 60 inches minimum.

ITEMS 852.11 and 852.12 (Continued)

Lateral joints between any surfaces shall not exceed 0.5 inches. Lateral edges may be vertical up to 0.25 inches high and shall be beveled at 1V:2H between 0.25 inches and 0.5 inches.

The TPAR shall be kept clear of debris, snow, and ice and the Temporary Pedestrian Barricades and Temporary Pedestrian Curb Ramps shall not obstruct drainage.

Removal and/or resetting of Temporary Pedestrian Barricades and Temporary Pedestrian Curb Ramps shall be considered incidental.

COMPENSATION

Payment for Temporary Pedestrian Barricades will be made at the Contract price per foot installed in place, including all incidental items. This price shall include the cost of furnishing, installing, resetting, removal, and maintaining in good working condition.

Payment for Temporary Pedestrian Curb Ramps will be made at the Contract price per each unit installed in place, including all incidental items. This price shall include the cost of furnishing, installing, resetting, removal, and maintaining in good working condition.

ITEM 854.6 TEMPORARY PORTABLE RUMBLE STRIP DAY

Work under this Item consists of furnishing, deploying, maintaining in proper operating conditions, and removing temporary portable rumble strips (TPRS) for temporary lane closures of 24 hours or less.

MATERIALS

The TPRS shall be 10’ to 11’ wide, measured perpendicular to the path of travel, 12” to 16” long, measured parallel to the path of travel, and 0.5” to 0.75” tall. All edges shall be beveled. The surfaces shall be grooved to limit potential hydroplaning.

The TPRS shall lay flat on the road surface without the use of nails, anchors, or adhesives, and shall be flexible so as to conform to the surface profile.

The TPRS shall be able to withstand vehicle weights of up to 80,000 lbs. and operate in temperatures between 0° to 120° F.

The manufacturer shall certify the TPRS to be safe for use on roads with speed limits of at least 70 mph.

TPRS that appear damaged or functioning in an unsafe manner may be order removed by the Engineer and replaced at no additional cost.

CONSTRUCTION METHODS

The TPRS shall be installed per the plans or at the discretion of the Engineer.

The Contractor shall conform to the manufacturer’s specifications for installation and the following:

A. The road surface shall be cleared of all gravel, sand, and debris.

B. If RoadQuake 2™ model is used, the modular pieces shall be assembled into 11-foot strips per the manufacturer’s instructions in advance of deployment. The interconnected segments shall form a smooth and flat, continuous section.

C. A Truck-Mounted Attenuator, conforming to Section 850, shall be used as shadow vehicle protection during the deployment and removal of TPRS on any roadway with speeds of 45 mph or greater.

D. TPRS shall be deployed in conjunction with all other temporary traffic control devices. MA-W28-1 (Rumble Strips Ahead) sign(s) shall be installed per the Temporary Traffic Control Plan.

ITEM 854.6 (Continued)

E. TPRS deployment:

1. TPRS shall be placed perpendicular to the direction of travel, centered in the lane.
2. Three (3) individual strips are required for a single array.
3. Refer to the Temporary Traffic Control Plan for the location of the array respective to the lane closure.
4. The spacing of the individual strips within the array shall conform to the following table:

Speed Limit	Distance Between Rumble Strips (measured center-to-center)
>55 mph	20 feet
40 mph to 55 mph	15 feet
<40 mph	10 feet

5. The TPRS shall be placed without the use of nails, adhesives, or other methods of affixing them to the road surface.

F. All TPRS shall be maintained in proper condition, alignment, spacing, and location throughout the duration of the lane closure, at no additional cost.

G. The TPRS shall be removed prior to the removal of the traffic control devices used to close the travel lane.

H. TPRS shall not be used during snow events.

ITEM 854.6 (Continued)

METHOD OF MEASUREMENT

An array of three (3) temporary portable rumble strips is considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times the array is deployed, repositioned, or removed.

BASIS OF PAYMENT

Temporary Portable Rumble Strips will be paid for at the Contract unit price per day, which shall include full compensation for furnishing, deploying, repositioning, and removing the array of three (3) individual strips as directed by the Engineer

ITEM 859.1 REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS DAY

The work under this Item shall conform the relevant provisions of Subsection 850 of the Standard Specifications and the following:

Work under this Item consists of furnishing, installing, maintaining in proper operating conditions, and removing reflectorized drums, and any necessary ballast, equipped with sequential flashing warning lights.

MATERIALS

Reflectorized drums shall be listed on the MassDOT Qualified Traffic Control Equipment List. Reflective sheeting on drums shall meet or exceed ASTM D4956 Type VIII. All drums shall be maintained in a satisfactory manner including the removal of oils, dirt, and debris that may cause reduced retroreflectivity.

The Contractor shall use one of the following sequential flashing warning light systems unless otherwise approved by the Engineer:

1. Empco-Lite LWCSD.
2. pi-Lit® Sequential Barricade-Style Lamp; or
3. Unipart Dorman SynchroGUIDE.

Sequential flashing warning lights shall be secured to reflectorized drums per the light manufacturer's specifications.

CONSTRUCTION METHODS

The first ten (10) drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

The successive flashing of the sequential warning lights shall occur from the upstream end of the merging or shifting taper to the downstream end of the taper in order to identify the desired vehicle path. Each warning light in the sequence shall be flashed at a rate of not less than 55, nor more than 75 times per minute.

Warning lights shall be powered off when drums are not deployed in a taper.

ITEM 859.1 (Continued)

METHOD OF MEASUREMENT

A group of ten (10) reflectorized drums with sequential flashing warning lights is considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times that the drums are positioned, repositioned, removed, or returned to service.

BASIS OF PAYMENT

Reflectorized Drums with Sequential Flashing Warning Lights will be paid for at the Contract unit price per day, which shall include full compensation for furnishing, positioning, repositioning, and removing the group of ten (10) drums as directed by the Engineer.

ITEM 864.031 PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC-BIKE LANE RIDER EACH

ITEM 864.032 PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC-BIKE LANE ARROW EACH

The work under these Items shall conform to the 2009 Manual of Uniform Traffic Control Devices (MUTCD) and the following:

The work shall consist of preparing pavement surfaces, along with furnishing and installing retroreflective preformed thermoplastic legends and symbols associated with bicycle pavement markings at locations shown on the plans or as requested by the Engineer, and in accordance with this special provision.

The Contractor shall provide all labor and material (i.e. propane fueled torch with pressure regulator and hose, tape measure, utility knife, putty knife, hammer, chisel, chalk sticks and snap lines, sealer, adequate supply of propane) and all other equipment, materials and incidental costs necessary to complete the installation of the preformed thermoplastic markings.

Shop Drawings

Within 30 days following execution of the Contract, the Contractor shall submit shop drawings for the performed thermoplastic material, and the manufacturer's materials specifications to the Engineer in accordance with the relevant provisions of MassDOT Standards Subsection 815.20.

No work shall be commenced by the Contractor until approval of the shop drawings and manufacturer's data has been received in writing from the Engineer. Approval of these drawings will be general in character and shall not relieve the Contractor from the responsibility of, or the necessity of, furnishing materials and workmanship conforming to the plans and specifications.

The Contractor shall deliver to the Engineer a certificate of compliance with the manufacturer for all materials purchased from the manufacturer.

ITEMS 864.031, 864.032 (Continued)

Materials

All preformed markings shall be selected from the following suppliers or approved equivalent:

- PreMARK Bike Marking, with ViziGrip, as manufactured by Flint Trading, Inc., 115 Todd Court, Thomasville, NC 27360.
- Ingevity (formerly Ozark Materials, LLC) 591 Glendale Ave, Greenville, AL 36037
- SWARCO Industries, LLC, 270 Rutherford Lane, TN 38402 Columbia, USA

The preformed markings shall have a thickness of 90 mils.

The surface of the markings shall upon application provide a minimum skid resistance value of 45 BPN when tested according to ASTM:E 303.

The legends and symbols, along with the manufacturer's item numbers, are as follows:

Legends & Symbols	**Manufacturer's Item No.**		
	PreMark	**Rae Paint**	**Ingevity***
Bicycle Rider	PM602006	3573	OZ-BP1013-090
Bike Lane Straight Arrow	PM602005	3525	OZ-BP1025-090

*Ingevity item number unknown. Ozark item numbers listed.

Application

In advance of the preformed marking installations, the Contractor shall mark, on site, the preformed markings with any changes required by field conditions such as manholes. The marking layouts shall be inspected and approved by the Engineer before the markings are installed.

The Contractor shall provide certification, to the Engineer, from the manufacturer documenting the Contractor's qualifications to install the preformed markings in a manner acceptable to the manufacturer and documented in installation materials provided by the manufacturer.

Prior to installation the pavement shall dry and free of dirt, debris, deicing agents, chemicals, and significant oily substances.

The Contractor shall be responsible for controlling and minimizing airborne dust and similar debris generated by surface preparation and cleanup to prevent a hazard to motor vehicle operation, pedestrians, or nuisance to adjacent property.

ITEMS 864.031, 864.032 (Continued)

Observations

The preformed markings shall be subject to a 180-day observation period under normal traffic conditions. The observation period shall begin with the satisfactory completion and acceptance of the work by the Engineer and MassDOT.

The preformed markings shall show no signs of failure such as: blistering, excessive cracking, chipping, discoloration, poor adhesion to the pavement, loss of reflectivity or vehicle damage. MassDOT reserves the right to check the color and retroreflectivity any time prior to the end of the observation period.

The Contractor, at no additional cost to MassDOT, shall replace any preformed markings that do not perform satisfactorily under the 180-day observation period.

Warranty

The Manufacturer shall warrant the preformed markings against material defects for a period of one year from the date of the acceptance letter of the project by MassDOT.

METHOD OF MEASUREMENT

Items 864.031 and 864.032 will be respectively measured for payment by the EACH retroreflective preformed thermoplastic legends and symbols installed, complete in place.

BASIS OF PAYMENT

Items 864.031 and 864.032 will be paid for at the respective Contract unit price per EACH, which prices shall include all labor, materials, equipment, shop drawings, submittal, and all incidental costs required to complete the work.

ITEM 874.2 TRAFFIC SIGN REMOVED AND RESET EACH

The work under this Item shall conform to the relevant provisions of Subsections 828 and 840 of the Standard Specifications and the following:

The work under this Item shall include warning-Regulatory and Route Marker signs, street name signs, and miscellaneous directional signs.

The Contractor shall carefully remove and reset at new locations all existing signs, attachment hardware and sign support posts not included under other sign items as shown on the drawings and as required by the Engineer.

Signs, attachment hardware and sign support posts shall be satisfactorily stored and protected until reset in the proposed work.

Signs, attachment hardware and sign support posts lost, damaged or otherwise made unsuitable for reuse while being removed, transported, stored or reset shall be replaced with new materials at no additional cost to the Owner. New attachment hardware shall be furnished and installed as necessary to replace any missing or unusable existing hardware.

The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing signs and their foundations and restore the area to match existing conditions of adjacent areas.

METHOD OF MEASUREMENT

Item 874.2 will be measured for payment by the EACH traffic sign removed and reset, complete in place.

BASIS PAYMENT

Item 874.2 will be paid for at the Contract unit price per EACH, which price shall include all labor, material, equipment, excavation, foundation removal and disposal, backfill, area restoration, and all incidental costs required to complete the work. New posts as required by the Engineer shall be incidental to Item 874.2.

ITEM 874.4 TRAFFIC SIGN REMOVED AND STACKED EACH

The work under this item shall conform to the relevant provisions of Subsections 828 and 840 of the Standard Specifications and the following:

The work under this Item shall include the careful removal, transporting and stacking of signs, attached hardware and supports from locations shown on the plans and as required by the Engineer.

The Contractor shall accept and hold entirely responsibility for the removal, handling and stacking at a location convenient for removal by the Owner. Any signs and posts damaged or lost either directly or indirectly as a result of the Contractor's operations shall be replaced by the Contractor at no additional cost to the Owner. The Contractor shall coordinate the removal of signs and posts with the Engineer by notifying the Engineer prior to and at the completion of the above work. Existing signs shall remain in place until proposed new signs are in place.

The Contractor shall carefully remove, transport and stack all material that, in the opinion of the Engineer, is salvageable.

The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing signs and their foundations and restore the area to match existing conditions of adjacent areas.

Town owned material shall be stacked at 500-C East Street Mansfield, MA 02048. The Contractor shall coordinate with the Town of Mansfield's Highway Operations Manager, Andy Littig, to schedule drop-off time and location.

METHOD OF MEASUREMENT

Item 874.4 will be measured for payment by the EACH traffic sign removed and stacked.

BASIS PAYMENT

Item 874.4 will be paid for at the Contract unit price per EACH, which price shall include all labor, materials, equipment, excavation, foundation removal and disposal, backfill and area restoration, dismantling, loading, transporting, stacking, and all incidental costs required to complete the work.

*****END OF DOCUMENT*****

DOCUMENT A00802

DETAIL SHEETS

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THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
TEN PARK PLAZA - BOSTON, MA

—PRELIMINARY ESTIMATE OF QUANTITIES — DETAIL SHEET—

TOWN:	Mansfield	YEAR:	2025
STA.:	12+18 to 33+54, 50+00 to 51+31, 60+00 to 60+76, 69+44 to 70+00, 79+41.to 80+00	ROAD:	School St, Spring St, Coral St, Day Ave, Bliss Ave
		CLASS:	Urban Minor Arterial
Type of Project:	Transportation Improvement Project	DATE:	02/27/2025

Earth Excavation	5,800.00	Cu. Yards	Gravel for Sidewalks	580.00	Cu. Yards
Class “B” Trench Excav	450.00	Cu. Yards	Gravel for Driveways	270.00	Cu. Yards
Subbase Borrow	2050.00	Cu. Yards	Crushed Stone	400.00	Ton

PROPOSED FULL DEPTH RECONSTRUCTION
(SCHOOL STREET) STA 13+32 ± TO 32±13 ±
(SPRING STREET) STA 50+00 TO 51+31±
(CORAL STREET) STA 60+00 TO 60+67±
(DAY AVE) STA 69+44 ± TO 70+00
(BLISS AVE) STA 79+41 ± TO 80+00

AREA = 7,508.6 SY

SURFACE: 2” SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
ASPHALTIC EMULSION FOR TACK COAT OVER
3” SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER
ASPHALTIC EMULSION FOR TACK COAT OVER

BASE: 4” DENSE GRADED CRUSHED STONE OVER

SUBBASE: 8” GRAVEL BORROW, TYPE b

ASPHALT EMULSION FOR TACK COAT (RS-1) OVER PAVED SURFACE.

PROPOSED PAVEMENT MICROMILLING AND OVERLAY
(SCHOOL STREET) STA 32+13 ± TO 33±54 ±

AREA = 755.0 SY

SURFACE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
ASPHALTIC EMULSION FOR TACK COAT OVER

MILLING: 2" PAVEMENT MICROMILLING VARIABLE DEPTH TO MEET PROPOSED GRADING

ASPHALT EMULSION FOR TACK COAT (RS-1) OVER MILLED SURFACE.

PROPOSED CEMENT CONCRETE SIDEWALK **AREA = 1561.5 SY**
PROPOSED CEMENT CONCRETE PEDESTRIAN CURB RAMP **AREA = 111.6 SY**

SURFACE: 4" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610 OVER

FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED RESIDENTIAL CEMENT CONCRETE DRIVEWAY **AREA = 724.5 SY**

SURFACE: 6" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610 OVER

FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED HOT MIX ASPHALT DRIVEWAY **AREA = 169.1 SY**

SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2.5" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

FOUNDATION: 8" GRAVEL BORROW, TYPE b

ASPHALT EMULSION FOR TACK COAT (RS-1) OVER MILLED SURFACE.

PROPOSED GRAVEL DRIVEWAY **AREA = 15.2 SY**

SURFACE: 8" GRAVEL BORROW (TYPE b)

PROPOSED STAMPED CEMENT CONCRETE PAVEMENT **AREA = 485.0 SY**

SURFACE: 4" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610 (COLOR/STAMPED)
6"X6", W1.4Xw1.4 WELDED WIRE MESH

FOUNDATION: 8" GRAVEL BORROW, TYPE b

ITEM 102.521 TREE AND PLANT PROTECTION FENCE

Station		STA..
18+34.88	to	18+69.88
19+09.04	to	19+24.04
21+46.43	to	22+20.09
29+11.81	to	29+26.81
29+32.93	to	29+47.93
30+43.51	to	30+50.51
30+67.38	to	30+74.38

ITEM 103. TREE REMOVED DIAMETER UNDER 24 INCHES

STA.
32+07 LT
32+09 LT
32+62 LT

ITEM 104. TREE REMOVED DIAMETER OVER 24 INCHES

STA.
27+66 LT
28+84 LT

ITEM 105. STUMP REMOVED

STA.
29+16 LT

ITEM 201. CATCH BASIN

Structure No.	Station		Type
3	16+68	RT	CBCI
2	16+72	LT	CBCI
5	16+97	LT	CBCI
6	16+97	RT	CBCI
9	18+75	RT	CBCI
10	20+64	RT	
8	18+75	LT	CBCI
164	20+57	RT	CBF&C
11	20+59	LT	CBCI
13	22+30	LT	CBCI
14	22+30	RT	CBCI
16	25+77	RT	CBCI

ITEM 201.(Continued)

15	25+77	LT	CBCI
143	26+00	RT	CBCI
142	26+03	LT	CB
183	28+16	RT	CBCI
18	28+19	LT	CBCI
20	28+71	LT	CBCI
21	30+60	RT	CBCI
27	30+60	LT	CBCI
25	32+04	RT	CBCI
26	32+17	LT	CBCI

ITEM 202. MANHOLE

Structure No.	Station	
31	13+24	RT
28	13+66	LT
1	16+64	LT
4	16+93	RT
32	17+17	RT
7	18+56	LT
175	20+50	RT
12	22+18	LT
38	24+78	LT
33	25+71	RT
144	25+95	RT
184	28+01	LT
19	28+52	RT
185	30+53	LT
23	31+83	RT
36	32+06	LT
37	33+52	LT

ITEM 238.10 10 INCH DUCTILE IRON PIPE

Structure No.		Structure No.
2	to	1
5	to	4
8	to	7
10	to	164
13	to	12
11	to	175
142	to	144
27	to	185
20	to	19
18	to	184
15	to	33
EX CB 14	to	23

ITEM 238.12 12 INCH DUCTILE IRON PIPE

Structure No.		Structure No.
6	to	4
9	to	7

ITEM 241.12 12 INCH REINFORCED CONCRETE PIPE CLASS III

Structure		Structure
3	to	1
12	to	175
14	to	12
25	to	23
32	to	4
36	to	23

ITEM 243.12 12 INCH REINFORCED CONCRETE PIPE CLASS IV

Structure		Structure
16	to	33
19	to	184
143	to	144
183	to	184

ITEM 241.24 24 INCH REINFORCED CONCRETE PIPE CLASS III

Structure		Structure
30	to	28

ITEM 242.24 24 INCH REINFORCED CONCRETE PIPE FLARED END

Structure		Structure	Offset
30	to	13+24.49	44.0 RT

ITEM 244.12 12 INCH REINFORCED CONCRETE PIPE CLASS V

Structure		Structure
26	to	36
21	to	185

ITEM 258 STONE FOR PIPE ENDS

Station			Offset	
13+53	to	13+63	40.4'	RT

ITEM 271.12 12 INCH AND UNDER PIPE REMOVED AND STACKED

Structure No.		Structure No.
EX CB 10	to	EX3 DMH
EX CB 13B	to	EX5 DMH
EX DMH 10	to	EX CB 15
EX CB 15	to	EX6 DMH
EX CB 16	to	EX7 DMH

ITEM 309. DUCTILE IRON FITITNGS FOR WATER PIPE

Station	Offset	Fittings
14+30	14 RT	11.25 DEGREE BEND
15+72	4.2 RT	12" X 6" TEE
15+73	18.5 RT	HYDRANT
19+57	7.2 RT	12" X 6" TEE
19+57	18.5 RT	HYDRANT
24+78	5.8 RT	12" X 6" TEE
24+78	18.4 RT	HYDRANT
28+91	9.4 RT	12" X 6" TEE
28+91	18.4 RT	HYDRANT
31+66	9.2 RT	12" X 6" TEE
32+15	9.2 RT	22.5 DEGREE BEND
32+28	14.5 RT	22.5 DEGREE BEND

ITEM 371.12 12 INCH COUPLING

Station	Offset	
14+22	13.7'	RT
32+38	14.4'	RT

ITEM 376.1 **HYDRANT – EXCLUDING COST OF HYDRANT**

Station	Offset
15+73	18.5' RT
19+57	18.5' RT
24+78	18.4' RT
28+91	18.4' RT

ITEM 384. **CURB STOP**

Station	Offset
14+38	25.2' LT
14+75	22.5' RT
15+35	31.1' LT
16+10	36.7' LT
16+72	25.6' RT
17+68	18.6' RT
18+94	22.3' LT
19+06	21.5' RT
19+13	22' LT
19+14	21.3' RT
19+48	22.1' LT
20+31	21.0' RT
20+73	23.1' LT
21+86	29.0' LT
22+05	23.9' RT
24+02	19.0' LT
25+48	17.0' LT
26+37	24.7' LT
27+00	22.1' LT
27+92	22.5' LT
28+23	30.2' LT
28+46	22.3' RT
28+96	20.0' LT
29+38	27.4' RT
29+75	21.7' LT
30+25	26.3' RT
30+55	18.7' LT
31+14	23.6' RT
31+23	18.3' RT
31+27	23.4' LT
31+91	23.0' RT
32+13	24.4' LT

ITEM 451. **HMA FOR PATCHING**

To be used for permanent pavement patching at utility trenches and as directed by the Engineer.

ITEM 472. **TEMPORARY ASPHALT PATCHING**

To be used for temporary pavement, temporary access to driveways and pedestrian curb ramps, and as directed by the Engineer.

ITEM 504.2. **GRANITE CURB TYPE VA4 – SPLAYED END**

Station	Offset
12+19	17.1' RT

ITEM 630.2 **HIGHWAY GUARD REMOVED AND DISCARDED**

Station		Station	
13+42	to	13+84	RT

ITEM 669. **FENCE REMOVED AND STACKED**

Station		Station	
22+39	to	22+93	RT

ITEM 698.4 **GEOTEXTILE FABRIC FOR PERMANENT EROSION CONTROL**

Station			Offset	
13+53	to	13+63	40.4'	RT

ITEM 705.1 **FLAGSTONE WALK REMOVED AND RESET**

Station	Offset
20+28	24.5' RT
26+12	21.5' LT
28+95	21.5' LT

ITEM 706.1 **BRICK WALK REMOVED AND RELAID**

Station	Offset
29+28	24.5' LT
30+31	24.5' RT

ITEM 711. BOUND REMOVED AND RESET

Station	Offset	
33+29	24.1'	LT
32+06	24.7'	LT
14+81	24.6'	LT

ITEM 715. RURAL MAILBOX REMOVED AND RESET

Station	Offset
22+97	16.6 LT
21+56	18.1 LT
15+96	16.7 LT
15+46	16.71 LT
20+62	16.6 LT
19+90	18.2 RT
19+05	16.8 RT
19+07	16.8 RT
19+09	16.9 RT
18+20	16.6 LT
16+20	16.8 RT
14+16	19.2 LT

ITEM 767.121 SEDIMENT CONTROL BARRIER

Station	Station	Offset
12+42	51+09	RT
13+27	14+28	LT
14+39	14+89	LT
22+18	22+65	LT
22+90	24+01	LT

ITEM 874.2 TRAFFIC SIGN REMOVED AND RESET

Station	Offset
14+12	36.3 RT
22+20	22.6 LT
25+27	17.9 RT
30+35	18 RT

And as required by the Engineer.

ITEM 874.4 **TRAFFIC SIGN REMOVED AND STACKED**

Station	Offset
14+12.45	36.32 RT
14+12.62	34.67 RT
14+47.43	32.32 RT
14+50.50	28.85 RT
27+42.02	19.36 RT
27+96.80	51.19 RT
28+06.58	20.97 LT
28+21.70	38.08 LT
31+58.28	32.95 LT
32+73.47	18.83' RT

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DOCUMENT A00805

TOWN OF MANSFIELD

WATER REGULATIONS AND

FEE SCHEDULE POLICY

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TOWN OF MANSFIELD

WATER REGULATIONS

AND

FEE SCHEDULE POLICY

December 2005

TOWN OF MANSFIELD

WATER REGULATIONS AND FEE SCHEDULE

December 2005

The following regulations are part of the contract with every person who takes water, and govern the relations between the Water Operations Division and its consumers. The Water Operations Division is operated within the American Water Works (AWWA) Standards and the Commonwealth of Massachusetts Department of Environmental Protection (DEP) regulations and guidelines, the more stringent shall apply.

Approved by the Town of Mansfield Water and Sewer Commissioners on

December 14, 2005.

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ARTICLE 1

DEFINITIONS

1. Consumer

The term "Consumer" shall mean the individual, firm or corporation listed as the owner of the property, whose name the Water Department has on its books as the party who has applied for water service or any individual, firm, or corporation who, in fact, uses the water service of the Town of Mansfield.

2. Main

The "main" is the supply pipe laid in the street, from which house connections are made.

3. Service

A "service" is the pipe running from the main in the street to include the shut off, usually inside the cellar wall.

4. Charges/Fees

Designated amounts charged for the services and/or materials rendered.

5. Division

The Town of Mansfield Department of Public Works, Water Operations Division.

ARTICLE 2

GENERAL PROVISIONS

1. Application for Water Service

All applications for introduction of town water to private premises shall be made at the office of the Department of Public Works (DPW) Office, 6 Park Row, Mansfield, MA by the owner of the property or by the person to be charged therefore, or by their authorized agent. A plan showing the proposed service, main and/or fire line must be filed with the application. The application must be made upon the blank form furnished by the DPW. All charges must be paid in full before final approval of the application. Tapping and installation charges for other service applications will be set by the Division after reviewing the specifications and layout of the service application.

A new application and plan must be submitted if any deviations from the plan occur. The revised plans must be approved by the Division.

Customers applying for new or additional services who have an outstanding or overdue balance will be required to make full payment of all outstanding balances prior to receiving any new or additional service.

Multiple parties applying for service and wishing to be on record as being mutually responsible for billing payments requires all parties to sign the application, together with unique identification numbers for each party.

2. Responsibility for Charges

Consumers of water will be charged with and held responsible for all water passing through their water meter until such time as they shall notify the Division at its office in writing that they no longer desire the use of water and in case of the sale of the property such notice shall give the name of the new owner. All outstanding balances shall be the responsibility of the new property owner.

Failure to pay water bills past the due date, may subject any and all property owners for the full amount of the charge and termination of service.

3. Status of New Owners

New owners of buildings shall have no right to the use of water until notification of change of ownership has been submitted to the DPW office.

4. Town to Have Free Access to Premises

Owners or occupants of any commercial, industrial or residential premises served by Mansfield's water system shall, upon presentation by Division personnel of their credentials, authorize entry to their premises without a warrant for the purpose of inspecting and surveying their water system for new installations or cross connections or to remove, repair or replace any water meter at any time the Division deems necessary. When such access is refused, the Water Division shall then notify the property owner by

certified mail the time and date when the water will be turned off and it will not be turned on until such access has been allowed and fees have been paid for shutting off and turning on the water.

5. No Alterations

No alterations shall be made in any of the pipes, fixtures, or meter reading devices inserted by the Town of Mansfield, except by its agents.

6. Conditions Under Which Service Is Furnished

The Town does not guarantee constant pressure nor uninterrupted service, nor does it assure the consumer either a full volume of water or the required pressure per square inch necessary to effectually operate hydraulic elevators, sprinkler systems or other appliances, the same being subject to all the variable conditions that may take place in the use of water from the Town mains.

7. No Liability for Interruption of Service

No Consumer shall be entitled to damages, or to have payment refunded, for any interruption of supply occasioned either by accident to any portion of the works, or by shutting off for the purpose of additions or repairs to the works, or by the stoppage or shortage of supply due to causes beyond the control of the Division, such as excessive drought, excessive use of and waste of water by other consumers, or by leaks or defects in the pipes or appliances owned by him or her or other consumers.

8. No Liability for Discolored Water

The Town will not be responsible for damages or staining of any fixture, appliance, clothes, etc. caused by discolored water resulting from the opening or closing of any gate valve, the use of any hydrant, or the breaking of any pipe, or any other situation that may result in a discoloration of the water.

9. No Liability for Consumer's Pipes

The Town assumes no liability for conditions which exist in consumer's pipes and cause trouble coincident or following the repairs of any main pipe, service pipe, meter or other appliance belonging to the Division.

10. No Liability for Damaged Appliances, etc.

The Division reserves the right at any time, without notice, to shut off the water in the mains for purposes of making repairs, extensions or for other necessary purposes. Persons having boilers or other appliances on their premises depending on the pressure in the pipes to keep them supplied with water are hereby CAUTIONED against danger from these sources, and are required to provide, at their own expenses, suitable safety appliances to protect themselves against such danger. In any event, it is expressly stipulated that the Department will not be liable for any damage resulting from water having been cut off, either through accident or necessity.

11. No Liability for Shutting Off Water Without Notice

When it becomes necessary to shut off the water from any section of the Town because of an accident or for the purpose of making changes or repairs, the Division will endeavor to give timely notice to as many of the consumers affected thereby as time and the character of the repairs or the accident will permit, and will, so far as practicable, use its best efforts to prevent inconvenience and damage arising from any such cause but failure to give such notice will not render the Division responsible or liable for any damages that may result from the shutting off of the water or any coincident conditions.

12. Violations of Regulations

Any violations of these regulations may result in the shutting off of the water to the violator's premises. When the water has been shut off for violations of rules, nonpayment of charges or other offense, it will not be turned on again until the Division is satisfied that there will be no further cause of complaint and a service charge (See Fee Schedule) has been paid to cover the cost of shutting off and turning on the water.

13. Other Water Supplies Prohibited

No other water supplies shall be allowed to be connected to the Town of Mansfield water supply system at any time. Any violations of these conditions will result in the immediate termination from the Town of Mansfield's water supply system and will be fined in accordance with the Fee Schedule.

14. Licensed Water Installer

All work performed on the Town of Mansfield water supply system by someone other than a Division employee, shall be performed by a current Licensed Water Installer.

15. Placing of Lien

Failure to pay water bills within sixty (60) days of billing subjects any and all properties for the full amount of the charge.

ARTICLE 3

CHARGES

1. Date of Consumer's Liability to Pay

All applicants for a new water service will be charged the service charge from the date the water is turned on, whether the water is used or not.

All bills shall be payable upon receipt.

Any bill outstanding after the due date shall be subject to forfeiture of the discount and shall be responsible for accrued interest.

Any bill outstanding after the due date shall be considered to be "overdue," and subject to the following procedures:

- Any bill outstanding after one day shall receive a past due notice, except when the outstanding bill is less than five (5) dollars.
- Any bill outstanding after 60 days will receive a final notice and will be subject to termination of service.

Arrangement for paying delinquent bills will be done by the Billing Supervisor. The payment agreement shall be as follows:

- One third of the outstanding bill shall be paid up front.
- The remainder of the bill shall be apportioned over period not to exceed 12 months. Current bills must be paid when due during this period. The Consumer is also responsible for paying any interest accrued during this period.
- Anyone deviating from the payment plan will be subject to termination.

Unique circumstances will be reviewed by the Billing Supervisor, DPW Director and Water Operations Manager.

2. More Than One Party on a Service

In existing cases where two or more users are supplied with water from the same service pipe, if any one of the parties fails to pay water charges when due, or to comply with any rule of the Division, the Division has the right to turn off the water from the whole service until such charges are paid, or the rules strictly complied with.

3. Collections of Miscellaneous Water Charges

All bills for miscellaneous charges will be subject to the same conditions of payment as outlined above in Paragraph 1.

4. Charge for Turning On or Off Water

A charge will be made for turning on or shutting off water in accordance with the Fee Schedule.

5. No Business with Delinquents

No person who owes an overdue bill for water charges shall be entitled to the further use of water at the same or any other premises until such water charges are paid in full, together with any additional costs incurred. Such costs shall include incurred interest.

6. Adjustments on Bills

All claims for adjustment of water bills shall be made in writing to the Billing Supervisor within thirty days (30) after the billing date on monthly or quarterly bills. All adjustments will be based on the rates in effect for the period in question.

7. All Metered Water to Be Paid For

All water passing through the consumer's water meter must be paid for, whether used or wasted.

8. When Meter is Out of Order

If a meter is out of order or fails to register, the Consumer will be charged at the average daily consumption as shown by the meter when in order, for the corresponding period of two years preceding.

9. No Right to Furnish Water to Other Premises

A Consumer will not be permitted to supply the premises of another person with water, except in special emergencies, and then only with the approval of the Division.

10. Final Billings

Consumers must contact the Division to set up a meter reading for final billing for the property transfer. All customers requesting termination of service will be required to supply a forwarding address. A signature card must be completed by the new property owner and returned to the Department of Public Works Office. Final bills must be picked up in the Department of Public Works Office.

11. Capital Charges

Capital charges are assessed based on the size of the meter in accordance with the Fee Schedule. Each meter, except meters for fire sprinklers, will be assessed a capital charge. Capital charges will be assessed for any new customer, dwelling unit, or commercial/industrial connection.

A credit will be made for the capital charges previously assessed to the property.

12. Special Readings

Special water meter readings, such as readings taken for pool fillings, will be billed in accordance with the Fee Schedule.

13. Water Meter Readings

Water meter readings for the purpose of billing shall be performed by Division personnel. The inside meter reading shall govern any discrepancies between the inside meter reading and the outside reading.

ARTICLE 4

METERS

1. Meter Installation

The Town of Mansfield shall supply and maintain meters up to and including one (1) inch. All meters larger than one (1) inch shall be purchased and maintained by the customer. Approved stop valves shall be installed near the inlet and the outlet of the meter by the Consumer, at his expense, to permit removal of the meter. Prior to a meter being installed on a new service a copy of the plumbing permit must be submitted to the Division with the application for a new service.

2. Consumers to Pay for Meter Repairs

All repairs or damages to meters from freezing, hot water, or external causes shall be charged to the Consumer in accordance with the Fee Schedule. No sale or other transfer of title of property in the Town of Mansfield shall prevent the Division in the collection of any balance due for meter repairs.

3. The Size of Meters Specified By Water Department

The proper size, type and kind of water meter required for any given service shall be specified by the Division.

4. Meter Not To Be Removed

All meters shall be set by an employee of the Division, and shall not be moved or disturbed except by the same. Anyone, other than an employee of the Division, tampering with a meter will be fined in accordance with the Fee Schedule.

5. Meter Pits

Meter pits are not allowed.

6. Town's Right to Change Meters

If, in the opinion of the Division, a meter does not fit the conditions of the service installation, the Division has the right to change such meter. Such change shall be made in accordance with the current regulations and paid for by the Consumer in accordance with the Fee Schedule.

7. Maintaining Meters

The Division will have the right to remove, repair, test for accuracy, or replace any meter at any time it deems necessary. For meters larger than one (1) inch, the Division will have the right to remove, repair, test for accuracy or replace any meter at any time it deems necessary. All costs associated with the meter replacement shall be the responsibility of the customer. All meter installations on services which cannot be shut

off for meter repairs shall be equipped with a metered by-pass at the expense of the Consumer.

8. Access To The Meter

It shall be the duty of all Consumers to see that meters on service connections wherever located shall be readily accessible at all time to the Division. Failure to remove any obstruction which prevents access to the meter within three (3) days after being notified by the Division will cause the water to be shut-off from the premises and it will not be turned on until all obstructions are removed, and all regulations complied with and all expense paid.

9. Testing Meters by Request

The accuracy of the meter on any premises will be tested by the Division, utilizing an outside firm, upon written request of the owner, who shall pay in advance a fee (see Fee Schedule) to cover the cost of the test. If, on such test the meter is found to register over two (2) percent more water than actually passes through it, the meter will be replaced and the fee will be refunded and the water bill for only the current period will be adjusted in accordance with the result of the test; if, however, it appears that the person was charged or has paid for less water than he should have been charge with or should have paid for, he shall forthwith, be charged with the proper additional amount and shall pay the same, together with the expense of the examination and test, to the Town.

10. Notice of Excessive Use of Water

The Division will endeavor to notify consumers of excessive use of water at the periodic readings of meter, but failure to send such notification or inability to read the meter from any cause shall form no basis for allowance on an abnormal water bill.

11. Meters on Private Wells

Any property owner with a private well that discharges to the Town of Mansfield's sewer system must have a Division approved water meter with a remote radio reading device installed at the owner's expense on the private well system for the purposes of sewer use billing.

ARTICLE 5

SERVICE PIPES AND FIXTURES

1. Responsibility of Consumers

Consumers must keep their water pipes and fixtures in good repair and protected from frost at their own expense, and they will be held responsible for any damage resulting from their failure to do so. They shall prevent any waste of water. If a water service is frozen and if requested by the Consumer, the Division will thaw the frozen service and charge the Owner in accordance with the Fee Schedule. The Division assumes no liability for any damages that result from thawing the frozen service.

2. All Service Pipes To Be Inspected

All new service pipes must be inspected by the Division before covering the pipe. All pipe and trench shall meet the approval of the Division. Permit allows for one inspection. All additional inspections will be charged at the existing rates per the Fee Schedule.

3. Part of Service Pipe Furnished by the Water Department

Service pipes will be laid from the water main to and including the curb stop. The Division will not be held responsible for damage to private property.

4. Right to Repair Service Pipes

All service pipes between the street line and the cellar wall may be repaired or re-laid by the Division when it deems it necessary for the protection of the supply or the giving of satisfactory water service and the cost and fees of the same charged to the Consumer.

5. Charges for Repair

The pipe from the curb stop to the building, including the service connection, is the property of the consumer, and all repairs to the same must be made at his expense.

6. Materials On Private Premises

Unless an emergency exists, no materials shall be supplied to the consumer. All fitting supplied by the Division to the consumer shall be billed to the consumer.

7. Irregular Service

Services for other than permanent structures, or which are used only a part of the year may, at the option of the Division, be put in at the expense of the Consumer.

8. One Service to Each Premise

Multifamily/condominiums with a single service must have separate meters for each dwelling unit, except for duplexes, which require separate services and meters for each dwelling unit. Capital charges shall be paid for each meter.

9. Requests for Turning On or Shutting Off Water

Requests for turning on or shutting off a water service shall be made 24 hours in advance, except in case of an emergency. Consumers shall be charged for each such service. Only Division personnel shall open or close curb stops. Requests for turning on or shutting off water, other than at normal working hours, shall be billed at the overtime rate. Anyone who opens or closes a curb stop will be fined in accordance with the Fee Schedule for each occurrence.

10. Winter Installations

No new services and mains can be installed between December 1st and March 30th without the permission of the Division.

11. Service Pipe Trenches

Service pipes shall not be placed within five (5) feet of other utilities except under special conditions and with the approval of the Division. The Division will not be responsible for damage to other utilities laid within five (5) feet of a water service pipe.

12. Standby Fire Protection

The Division will furnish standby fire protection service in accordance with rates and charges specified in the Fee Schedule. All equipment for this purpose shall be installed entirely at the expense of the consumer and with the approval of the Division. Such pipes must not be used for the supplying of water of any other purposes and must be so arranged that easy inspection can be made by the Division. Whenever it is considered necessary for the protection of the water supply and in the interest of the Town of Mansfield, the Division shall have the right to require the installation of meters, alarms, or other accessories, the installation and upkeep of such equipment, to be at the consumer's expense. All cross connection regulations must be complied with.

13. Testing Fire System

No water shall be taken or used through private fire systems for the purpose of testing, unless the Division issues a permit. Such test must be conducted under the supervision of the Division and will be assessed a fee in accordance with the Fee Schedule. Unauthorized testing will be subject to a fine in accordance with the Fee Schedule.

14. Right to Restrict the Use Of Water

The Division has the right to restrict the use of water.

15. Operation of Fire Hydrants

The operation of fire hydrants, town and private, is restricted only to members of the Fire Department and to employees of the Division. All hydrant use, except for Fire Department or Division purposes shall be metered and fitted with an approved backflow prevention device. All meters and backflow prevention devices shall be installed and removed by the Division. A rental fee will be charge in accordance with the Fee Schedule. Persons who use the fire hydrant without written permission shall be fined as per the Fee Schedule.

Persons renting hydrant meters shall be responsible for paying for any damages to the meter or for any property damage.

16. Backflow Preventers

If the installation of an approved backflow preventor(s) on the property side of a meter of any Consumer is considered necessary by the plumbing code such approved device(s) shall be immediately installed by and at the expense of the Consumer. Said preventor(s) shall be installed, surveyed and tested in accordance with the Drinking Water Regulations of Massachusetts, 310 CMR 22.22. All tests and surveys performed by the Division shall be charged as set forth in Fee Schedule.

Failure to install an approved backflow preventor will result in the termination of the service and all charges to terminate the service will be in accordance with the Fee Schedule.

17. Installation of New Mains By Developer or Subdivider

The size of all mains installed by a subdivider or developer shall be determined by the Division and installed by a Licensed Water Installer under the supervision of the Division. The contractor shall reimburse the Town for the cost of the supervision in accordance with the Fee Schedule. All mains installed in subdivisions shall be maintained by the subdivider until the road(s) is accepted by the Town.

18. Razed Buildings

The property owner must obtain a permit prior to terminating service. If a building is being razed and if the existing building service does not meet the current water regulations, it is the responsibility of the property owner to terminate the service at the connection to the water main by closing the corporation stop, disconnecting no less than 2 feet of pipe and capping the corporation stop prior to the building being razed. Work must be inspected by the Division and all costs must be paid for by the property owner in accordance with the Fee Schedule. The water meter must also be replaced and the cost of the new meter will be charged to the new property owner.

19. Frozen Services

If a service needs to be thawed out on the property side, the Consumer must take the necessary corrective actions to increase the depth of bury and/or provide insulation to prevent future frozen services.

20. Looped Mains

All water mains longer than 300 feet are required to be looped. The diameter of the looped main shall be equal to the size of the main and the pipe it is connected to or as determined by the Division. Any water main less than 300 feet must have a fire hydrant installed at the end of the main.

21. Fire Hydrants

Location of fire hydrants shall be in accordance with AWWA standards and DEP guidelines and as approved by the Division. If for any reason the original location of the fire hydrant changes a new plan must be submitted to and approved by the Division.

22. Hydrant Flow Testing

Hydrant flow testing shall only be performed between the hours of 9:00 AM and 12 Noon, or as approved by the Division. The tester must supply all test results to the Division within 30 days. The tester is responsible for any property damage which occurs as a result of the testing. Hydrant flow testing equipment shall be supplied by the tester. Fees will be assessed for hydrant flow testing in accordance with the Fee Schedule.

23. Service Pipe Size

The minimum service pipe size shall be 1 inches in diameter for services up to 200 feet in length and 2 inches in diameter for services up to 400 feet in length. For services over 400 feet in length the minimum diameter shall be 8 inches with a fire hydrant installed at the end of the service.

ARTICLE 6

REQUIREMENTS AND SPECIFICATIONS FOR WATER MAINS

1. General

All materials shall be North American made.

All materials and procedures shall conform to AWWA standards, DEP guidelines and Town of Mansfield regulations. The most stringent of the three shall apply.

2. Pipe and fittings.

All pipe shall conform in design and manufactured to the latest issue of AWWA Standard C151, "Ductile-Iron Pipe, Centrifugally Cast, For Water or Other Liquids." Pipe shall have a pressure class of 350.

All fittings shall be ductile iron and conform in design and manufactured to the latest issue of AWWA Standard C110, "Ductile-Iron and Gray-Iron Fittings," 3-Inch Through 48-Inch For Water and Other Liquids.

All pipe and fittings shall have a double cement-mortar lining inside and a bituminous seal coat applied both inside and outside to conform to AWWA C104, "Cement-Mortar Lining For Ductile-Iron Pipe and Fittings For Water."

Push-on and mechanical joints are permitted and shall conform in design and manufactured to the latest issue of AWWA Standard C111, "Rubber-Gasket Joint For Ductile-Iron Pressure Pipe and Fittings."

3. Valves

All valves shall conform in design and manufactured to the latest issue of AWWA Standard C509, "Resilient-Seated Gate Valves For Water Supply." Acceptable valves are Mueller or approved equal.

All valves shall have a two-inch operating nut, mechanical joint hubs (except for wet taps), and open in a counter clockwise direction. If shallow depth of bury or other conditions of service require that the valve be installed in a horizontal position, a nut-operated bevel gear shall be fitted to the valve for service operation through a valve box.

4. Hydrants

Hydrants shall conform in design and manufacture to the latest issue of AWWA Standard C502, "Dry Barrel Fire Hydrants." Acceptable hydrants are Kennedy K81 and Mueller A423.

Hydrants shall be compression type, i.e., the main valve shall open against and close with water pressure. Hydrants shall be of the dry top design with "O" ring seals to ensure that the operating threads will be protected from water entry. Dry top design is to include a

factory-lubricated operating mechanism that allows supplemental lubricant to be added in the field without the removal of the top section. The downward travel of the main rod and valve assembly to the full open position shall be controlled by a travel stop device located in the upper stem section of the rod or have a positive stop in the base of the hydrant shoe. The drain mechanism shall be an integral part of the valve assembly. All internal parts shall be removable through the top of the hydrant when the bonnet has been removed.

Hydrants shall comply with the following:

(1) Main valve opening: 5.25 inches.

(2) Outlets:

(a) Hose connections: two to 2.50 inches.

(b) Steamer connection: one to 4.50 inches.

(3) Shoe: six-inch mechanical joint (range 6.90 to 7.10 outside diameter).

(4) Direction of opening: counterclockwise (open left).

(5) Height (bury line to operating nut): 28.75 inches minimum.

(6) Model: traffic (breakaway design).

(7) Color: Safety red body, Safety yellow bonnet and caps.

All hydrants shall have a permanently mounted marking device approved by the Division.

4. Cover over pipe

Pipe shall have five feet of cover measured to finish grade of the street. Pipe to be hand-covered one foot with sand or stone free gravel and compacted and tamped around pipe to give good support and protection.

In case of any excavations in swamp or when unsuitable material is encountered, the Contractor shall replace the same with a good material to provide proper support and alignment of the pipe line. In some cases, the contractor shall use crushed stone for good bedding. Trench backfill shall be suitable material taken from the excavation, approved common borrow or gravel hauled in. No mud, frozen earth, stones larger than eight inches or other objectionable material is to be used for refilling.

5. Ledge

All ledge shall be removed to a width two feet greater than the diameter of the pipe and one foot below the underside of the pipe. A bed of sand shall be placed in the trench prior to laying pipe.

6. Blasting

All blasting shall be completed within a distance of 50 feet from any water service or water main.

7. Excavation within public ways

A street opening permit shall be obtained from the Department of Public Works before any excavation can begin within any town-accepted street. The work shall be performed in accordance with permit.

8. Service pipes

The service pipe shall be at least one-inch in diameter.

No sweat fittings or unions shall be allowed between the curb stop and the meter regardless of the meter location. Where the service length is 100 feet or greater, the size of the service pipe shall be subject to approval by the Division. One union shall be allowed for 2 inch diameter service pipe.

Plastic service pipes shall be copper tubing size with a 200 psi working pressure. The pipe shall be grounded at both ends with 12 gauge solid copper wire and with stainless steel inserts at all connections.

9. AWWA Brass

Preferred manufacturer shall be Mueller, Ford or Red Hed

Connection style – Compression

Corporations shall be ball type with CC threads.

Curb stops must have a drain and shall be Open Left

10. Curb and Gate Boxes

Curb boxes shall be 94 E Buffalo style slide type.

Gate Boxes shall be 3 piece slide type with “Water” stamped on top.

11. Testing

Before acceptance by the Division, the pipe shall be pressure-tested and chlorinated in accordance with "Installation of Ductile-Iron Water Mains and Appurtenances," AWWA Designation C651, latest edition.

No one shall pressure-test or chlorinate an installation without notifying the Division at least 48 hours prior. An employee of the Division must be present for the duration of the pressure test and chlorination to witness and sign the results. All pressure-test reports shall consist of the actual distance of pipe by size, number of valves and hydrants shall be sent to the Division. The water for disinfection and flushing shall be furnished by the town.

Samples of water taken after the disinfection of the water pipes shall be delivered by Division to a testing laboratory approved by the Commonwealth of Massachusetts. All costs associated with the pressure testing, chlorination and sampling shall be in accordance with the Fee Schedule.

ARTICLE 7

RATES

1. Water Rates

Water rates shall be as noted in the current Rate Sheet.

2. Senior Citizen Special Provision

Customers who reside at a single family home and are older than 62 years of age and owner of record shall never forfeit their 10% discount, irrespective of the date they submit payment to the Town.

3. Discount

All water and sewer bills shall be credited with a 10% discount if paid by the due date. Each consumer is entitled to one past due consideration before losing their 10% discount.

4. Interest

All water and sewer bills shall be charge 14% interest per annum 30 days from the bill date.

APPENDIX A

FEE SCHEDULE

1. SERVICES

Install new service - Complete cost of new service based on labor and materials expended. Will vary depending upon length and location of service and if controlled density fill (CDF), bituminous pavement, police details, etc are required.

The applicant shall be responsible for obtaining a street cut permit and payment of a police detail. Installations within a State Highway layout may require additional work and materials, where the costs shall be paid for by the applicant.

2. METERS

Install new 5/8" x 3/4" meter, existing service -	$195.00
Install new 1" meter, existing service -	$245.00
Radio reading devices, supplied and installed -	$105.00

3. INSPECTIONS & TESTING

BACKFLOW DEVICES	
Property survey, per property -	$60.00
Device testing, per test -	$60.00
Application fee per new device added to the system	$80.00

4. OTHER SERVICES

Hydrant flow testing per test	$75.00
Flushing new main (per 1000 linear feet of main)	$85.00
Water flushed to waste shall be metered and billed at current rates	
Pressure testing/chlorination	$130.00
Sample new main including transportation & Lab fee, per sample	$100.00
Service inspection, per visit	$50.00
Main pipe inspection per 100 feet, per visit	$50.00
Meter testing (including removal & reinstallation)	$65.00
Meter test below accuracy standards	N/C
Thawing frozen service at anytime	
1st call: Cost of labor plus equipment charges	
2nd call: $100.00 plus labor and equipment charges	
3rd call: $300.00 plus labor and equipment charges	
Opening and closing water main valves	$250.00

If the Division is required to use any police details except for Division use, the charges will be billed directly to the party the detail is required for.

LABOR

Straight time per hour, per man	$40.00
Overtime per hours, per man, min 4 hours, except Sundays and Holidays	$60.00
Overtime per hour, per man min 4 hours Sundays and Holidays	$75.00
Backhoe w/Operator, straight time, per hour	$100.00
Backhoe w/Operator, overtime, per hour	$175.00
Turn on water service regular hours, per visit	$50.00
Turn off water service regular hours, per visit	$50.00
Meter reading (finals-property transfer, pool fillings, other special readings)	$50.00

5. MISCELLANEOUS

CAPITAL CHARGES - As approved by the Water and Sewer Commissioners

OTHER

Hydrant meter rental (per day)	$50.00
Hydrant meter rental (per week)	$150.00

(not including consumption, billed separately)
Persons renting hydrant meters shall be responsible to pay for any damages to the meter

Private fire system testing, per test	$75.00

FINES

Unauthorized use of hydrants, valves, illegal connections, or any other violation of these Water Regulations, per violation $500.00
plus any costs incurred by the Division pertaining to the violations

Unauthorized testing of fire system per violation	$250.00

APPENDIX B

LICENSED WATER INSTALLER REGULATIONS

1.0 Applicability

1.1 The Town of Mansfield Board of Selectmen requires all contractors in the business of installing water lines to be licensed with the Town. The Board of Selectmen has designated the DPW Director to administer the licensing program as described by the following regulations.

2.0 Water Installer's License

2.1 Issuance of a Water Installer's License

Anyone installing a water line or appurtenance on land in the Town of Mansfield shall be licensed pursuant to these regulations. Licenses shall be obtained from the Board of Selectmen through the DPW Director or his designee at the Mansfield Town Hall, Six Park Row, Mansfield, Massachusetts, 02048, telephone number (508) 261-7330. The license shall be in the name of the entity or an individual. A Water Installer's license application is included in Attachment A, Page 4.

2.2 Application

A license application shall not be considered complete unless a valid State of Massachusetts Heavy Equipment Operators License, Certificate(s) of Insurance, Performance Bond, references, and the appropriate fee accompany it. The entity or individual shall complete the license application and submit it to the DPW Director, who will present the completed application to the Board of Selectmen for approval within twenty-one (21) days. The Town shall maintain an up-to-date list of Licensed Water Installers, which shall be provided to residents and others requesting the same.

2.2.1 Insurance

The licensed Water Installer shall file an insurance certificate(s) listing the Town as the additionally insured and stating that the Town shall be notified thirty (30) days prior to cancellation annually with the Town of Mansfield for the appropriate insurance coverage shown below:

a. Worker's Compensation Insurance for the protection of all employees in accordance with applicable state law.

b. Contractor's Liability with limits of $1,000,000.00.

c. Automotive liability on and off public highways, owned vehicles, hired vehicles, and non-ownership liability with a limit of $1,000,000.00.

Liability insurance shall cover property damage insurance, blasting and explosion, underground damage to utilities, and collapse.

2.2.2 License Term

Beginning July 1, 2005, the license term for a Water Installer shall be July 1, 2005 to December 31, 2006. Beginning January 1, 2007 the license term for a Water Installer shall be January 1st to December 31st.

2.2.3 License Fees

Licensed Water Installers shall pay an annual license fee of $250.00 to the Town of Mansfield at the time of application or renewal. All licenses regardless of the date of application date shall expire on December 31st of that year (except for licenses granter between July 1, 2005 and December 31, 2005, which shall expire December 31, 2006.)

2.2.4 Performance Bond

A performance bond in the sum of $5,000 that shall remain in full effect for a period of three years from the effective date of the license and shall be required each year of licensure. The performance bond shall be prepared on the attached form included in Attachment B of these regulations.

Upon renewal of a license, or in subsequent years application the Water Installer shall either submit a new bond which shall remain in full force for a period of three years from the date of application or renewal, or extend the length of the current bond on file, by means of a certificate of rider so that the expiration date of the current bond will be changed to be in full effect for a period of three years from the date of application or renewal.

2.2.5 References

The Water Installer shall submit a list of at least three references that are familiar with the past work and experience of the Water Installer. The list shall include the name, organization, contact number(s), and brief description of the type of work performed for each reference. Other municipal references are preferred.

2.3 Notice of Violation

The Town will issue a "Notice of Violation" whenever it determines that:

- A contractor is performing work without proper licensure.
- A contractor is in non-compliance with the Rules and Regulations set forth by the Department of Public Safety.
- Construction is proceeding in a manner that jeopardizes public safety.
- Construction is occurring in violation of these Standards and/or any other applicable approved specification or details.

- Water construction is proceeding without a valid permit.
- There is evidence of any cross-connection with a sewer line.
- Work is taking place in a right-of-way without a proper police detail, subject to the Town of Mansfield Police Chief's approval.
- Work is taking place in the right-of-way without proper permits and/or notifications.
- There is damage to the roadway, public property, or utilities resulting from the work.
- There are debris and/or soils in the roadway resulting from the work.
- Work is not complete, including necessary testing and as-built documentation.

Any person found to be in violation of any provision of these Regulations, shall be served by the Town with written notice stating the nature of the violation, and provided with a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease and correct all violations.

The Board of Selectmen shall enforce these regulations.

2.4 Fines

The Board of Selectmen may impose a **$250.00** fine per day against any Water Installer who violates the requirements contained herein until the violation is rectified following the acceptance of the DPW Director. The licensed Water Installer may appeal the fine to the Board of Selectmen. The appeal must be made in writing within 10 business days of issuance.

Any person violating any of the provisions of these Regulations shall become liable to the Town for any expense, loss or damage occasioned the Town by reason of such violations.

2.5 Terminations and Suspension of License

The Board of Selectmen may terminate or suspend any Water Installer's license upon due notice and after a public hearing for violating any of the specifications contained herein including the expiration of bonds and/or insurance. There shall not be any rebate on the annual fee upon termination. Termination will be for just cause including shoddy workmanship, performing work without a permit, incomplete work, any violation of this regulation, not completing proper as-built plans, and other just causes. The contractor may apply for reinstatement, but the Town retains the right to not reissue the license or only reissue it in the future at its discretion.

2.6 License Application/Renewal Forms

The Application for Water Installer's License can be found in Attachment A Page 4 of these regulations. The DPW Director may issue a negative recommendation to the Board of Selectmen for previous violations, negative references, or lack of relevant experience.

Also, the Town of Mansfield may withhold approval of any licenses and/or permits for outstanding taxes or fees.

APPLICATION FOR
WATER INSTALLER'S LICENSE
TOWN OF MANSFIELD
SIX PARK ROW, MANSFIED, MA 02048

OFFICE USE ONLY:

LICENSE NUMBER: _____

APPLICATION RECEIVED: _____

DPW APPROVAL: _____

BY: _____

SELECTMEN APPROVAL: _____

Application Type: □ New License □ License Renewal If Renewal, list previous License # _____

Name of Corporation: _____

Contact Person: _____

Mailing Address: _____

_____

Street Address: _____

_____

Phone: _____

FAX: _____

24-Hour Phone: _____

The Following items must be attached:

- A copy of Valid Heavy Equipment Operators License
- Insurance Certificate (Town must be listed as additionally insured)
- Performance Bond (USE ATTACHED FORM)
- Three (3) references who are familiar with your work with telephone numbers (NOT REQUIRED FOR RENEWALS)
- Application fee ($250 – full year, $125 – half year)

THE UNDERSIGNED HEREBY ACKNOWLEDGES RECEIPT AND UNDERSTANDING OF THE WATER INSTALLER'S REGULATIONS, AND THAT HE/SHE HAS READ THE ENTIRE DOCUMENT.

Signature: _____ Date: _____

Bond Number: _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ (an individual, partnership, corporation or company) duly organized under the Laws of the State of Massachusetts, and having a usual place of business at:

_____ as Principal, and

_____ a corporation duly organized under the Laws of

the State of _____and duly authorized to do business in the Commonwealth of Massachusetts, and

having a usual place of business at _____ as Surety, are holden and stand firmly bond and obligated unto the Town of Mansfield, Massachusetts, as obligee, in the sum of **Five Thousand Dollars and no/cents ($5,000.00)** lawful money of the United States of America, to and for the true payments whereof we bind ourselves and, each of us, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal, by means of a written AGREEMENT (Water Installer's License and Water Regulations, adopted, MM/DD/YYYY) shall install water work in the Town of Mansfield in accordance with the regulations.

Whenever the Company shall be, and declared by the Town to be in default under the Water Regulations or Water Installer's License Regulations shall promptly remedy the default or complete the water work.

No right of action shall accrue on the Bond to or for the use of any persons other than the Town named herein or the heirs, executors, administrators, successors and assigns of the Town.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this day _____of _____.

	Principal: _____		Surety: _____	
(SEAL)	By: _____		By: _____	(SEAL)
	Title: _____		Title: _____	

IMPORTANT

Surety Companies executing BONDS must appear on the U.S. Treasury Department's most current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts and be authorized to transact business in the State of Massachusetts.

The attention of the Surety Companies and Company executing this Performance Bond is directed to the fact that said Bond shall remain in full effect for a period of three (3) years from the effective date of the issuance of a Water Installer's License.

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DOCUMENT A00808

PROJECT UTILITY COORDINATION FORM

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Project Utilities Coordination (PUC) Form

CONTACTS AND GENERAL UTILITY INFORMATION

6/21/2024
Revision Date:

City/Town:	Project File #:	PUC Completed by:	Utility Pole Set:	
Mansfield	609255		Mansfield Electric / Verizon	
Route/Street:	**Resident Engineer:**	**Mass DOT PM:**	**Scheduled Ad Date:**	**Total Poles Relocated:**
School Street		Aidee Cira	6/28/2025	1

6/21/2024
PRINTED

Consultant:	Contact:	Office #	Cell #	Email
VHB	Jamie Pisano	(401) 457-2068		jpisano@vhb.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
Mansfield Electric	Ralph Bellavance	(508) 922-6475		Ralph.Bellavance@mansfieldma.com	x		x		100% reimbursable	x			x	x	x
Comcast	Wendy Brown	(978) 848-5163		Wendy_Brown@comcast.com	x		x			x			x		x
Verizon	Karen Mealey	(774) 409-3160		karen.m.mealey@verizon.com	x		x			x			x	x	x
Eversource Gas	Brendan Pitts	(508) 895-4818		Brendan.Pitts@Eversource.com	x		x				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 Mansfield. 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

6/21/2024
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 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	Contractor Concurrent: Contractor and Utility are working on-site - but NOT in the same vicinity	Potential Access Restraint (Yes/No)	Reason/Note (optional)
Stage : 1	C		>Contractor to provide 60 day notice before starting work.							
			UTILITY OPERATIONS - Aerial							
Task: 1			***Mansfield Municipal Electric***							
		u	MGED - Set pole.	1	x			x		
		u	MGED - Transfer wires and equipment to new poles.	2	x			x		
			Sub-Total	3						
Task: 2			***Comcast***							
		U	Comcast - Rebuild 1 span aerial coax cable and strand and de-lash out and re-lash in Multiple Fiber Cables along School St Mansfield.	10	x			x		
Task: 3			***Verizon***							
		u	Verizon - Transfer cable to new pole locations.	2	x			x		
		u	Verizon - Place new guy wire and remove old guy wire.	1	x			x		
			Sub-Total	3						
	C		>Contractor to provide 60 day notice before starting work. >At a minimum, the Contractor is to provide Eversource-Gas finish grade elevations in order to install their proposed gas main at the required depths to accommodate the proposed profile cuts and drainage laterals. Otherwise the profile cuts and drainage laterals will have to be installed prior to the gas main relocation.							
			UTILITY OPERATIONS - Underground							
Task: 4			***Eversource Gas***							
		u	Eversource-Gas - Install ~1750' of 6"PHHP Gas main and abandon existing 4" CSHP. Transfer or relay all impacted customer gas services to new main.	56	x			x		
				56						

RESPONSIBLE PARTY: C = Contractor	RESPONSIBLE PARTY: U = Utility Co.	DESCRIPTION - Utility Relocation Phases, Tasks and Activities	Estimated Duration (Work Days) by Utilities (Lead time not included)	Concurrent / Exclusive Utility Work: Exclusive Utility on site — Utility working with no other Utilities in vicinity	Concurrent / Exclusive Utility Work: Concurrent Utilities — Utility working with other Utilities on site	Concurrent / Exclusive Utility Work: Contractor Off-Site — No Contractor physical construction operations on-site (while Utility	Concurrent / Exclusive Utility Work: Contractor Concurrent — Contractor and Utility are working on-site - but NOT in the same vicinity	Access Restraint & Limitations of Operations Notes: Potential Access Restraint (Yes/No)	Access Restraint & Limitations of Operations Notes: Reason/Note (optional)
				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 ?	

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 Durations.

Project # 608944
Project: Mansfield Rte 106

Pole Set
Mansfield Electric/Verizon

Durations

Utility	DUCE Estimate	Actual Utility Estimate	Task	No. of Poles	Days per UP for Task	Subtotal for Task
Mansfield Electric	x		Set UP's	13	1	13
Mansfield Electric	x		Transfer Wires	13	2	26
NGrid Electric	x		Set UP's	0	1	0
NGrid Electric	x		Transfer Wires	13	2	26
Fire Alarm	x		Transfer Wires	0	1	0
Unkown Fiber	x		Transfer Wires	13	1	13
Open Cape	x		Transfer Wires	13	1	13
Comcast	x		Transfer Wires	13	1	13
Verizon	x		Transfer Wires & Splicing	13	5	65
Verizon	x		Remove UP's	13	1	13
					Total:	**182**

Costs

Utility	DUCE Estimate	Actual Utility Estimate	No. of Poles	Cost Per UP	100% Cost	Percent Reimbursable	Reimbursable Cost
Verizon	x		13	$20,000.00	$260,000.00	50.00%	$130,000.00
Mansfield Electric	x		13	$15,000.00	$195,000.00	100.00%	$195,000.00
NGrid Electric	x		13	$15,000.00	$195,000.00	50.00%	$97,500.00
Fire Alarm	x		0	$1,500.00	$0.00	100.00%	$0.00
Unkown Fiber	x		13	$2,000.00	$26,000.00	100.00%	$26,000.00
Open Cape	x		0	$2,000.00	$0.00	50.00%	$0.00
Comcast	x		13	$3,000.00	$39,000.00	50.00%	$19,500.00
Eversource Gas	x		0	$0.00	$267,181.40	50.00%	$133,590.70
				$58,500.00	$982,181.40		**$601,590.70**

Project #
Project:

Design Speed 40 MPH
Functional Classification Urban Minor Arterial

Underground Durations

Utility	DUCE Estimate	Actual Utility Estimate	Task	Length	FT per DAY for Task	Subtotal for Task
Eversource Electric	x					#DIV/0!
Eversource Gas	x			50	10	5
						#DIV/0!
						#DIV/0!
						#DIV/0!
						#DIV/0!
					Total:	**#DIV/0!**

	L < 100ft
Electric relocation	10
Telephone relocation	10
Cable relocation	20
Gas Relocation	10
Municipal Lighting Conduit	20

Underground Costs

Utility	DUCE Estimate	Actual Utility Estimate	Length	Cost Per FT	100% Cost	Percent Reimbursable	Reimbursable Cost
Eversource Electric	x				$0.00	50.00%	$0.00
Eversource Gas		x	50	$5,343.63	$267,181.40	50.00%	$133,590.70
				Total:	$267,181.40	**Total:**	**$133,590.70**

	L < 100ft
Electric relocation	$800
Telephone relocation	$1,000
Cable relocation	$500
Gas Relocation	$1,000
Municipal Lighting Conduit	$500

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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: MANSFIELD Project File Number: 609255

Contract Number: 130934

Project Description: Multimodal Accommodation on School Street, from Spring Street to West Street

All AutoCAD files are provided solely as a courtesy to facilitate public access to information. MassDOT attempts to provide current and accurate information but cannot guarantee so. MassDOT provides such documents, files or other data "as is" without any warranty of any kind, either expressed or implied, including but not limited to, accuracy, reliability, omissions, completeness and currentness. The Commonwealth of Massachusetts and its Consultants shall not be liable for any claim for damages, including lost profits or other consequential, exemplary, incidental, indirect or special damages, relating in any way to the documents, files or other data accessible from this file, including, but not limited to, claims arising out of or related to electronic access or transmission of data or viruses. Because data stored on electronic media can deteriorate undetected or be modified without our knowledge, MassDOT cannot be held liable for its completeness or correctness. MassDOT makes no representation as to the compatibility of these files beyond the version of the stated CAD software.

By signing this form, I agree that it shall be my responsibility to reconcile this electronic data with the conformed contract documents, and that only the conformed contract documents shall be regarded as legal documents for this Project. I understand that this authorization does not give me the right to distribute the files. I agree to the terms above and wish to receive the AutoCAD files.

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: _____

Address: _____

_____

Telephone number: _____

Email address: _____

Signature/Date: _____

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DOCUMENT A00850

MASSACHUSETTS WETLANDS PROTECTION ACT

REQUEST FOR DETERMINATION OF APPLICABILITY

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December 5, 2023

Ref: #72989.10

Mansfield Conservation Commission
6 Park Row
Mansfield, MA 02493

Re: Request for Determination of Applicability: Multimodal Accommodations on School Street (MassDOT Project No. 609255)

Dear Commissioners:

On behalf of the Town of Mansfield (the 'Applicant'), Vanasse Hangen Brustlin, Inc. (VHB) is submitting the enclosed Request for Determination of Applicability (RDA) for the proposed roadway reconstruction with multimodal accommodations (the 'Project') along School Street from Spring Street to West Street (approximately 2,500 Feet) in Mansfield, MA (the 'Project Site') to accommodate all roadway users and improve traffic operations.

Portions of the Project are located in the jurisdictional 100-foot buffer zone of the Bank and Bordering Vegetated Wetland (BVW) under the Massachusetts Wetlands Protection Act (WPA) and 25-foot No-disturb Zone under the Mansfield Wetlands Bylaw. As demonstrated in the Regulatory Compliance section, the majority of the proposed work in buffer zones is exempt under the WPA and Mansfield Wetlands Bylaw. The non-exempt work in the buffer zones will result in a *de minimis* change to the existing ground conditions and is not anticipated to impact wetland resource area functions or values.

The Applicant respectfully requests that the Mansfield Conservation Commission find these measures protective of the interests identified in the WPA and issue a Negative Determination of Applicability. Eleven (11) copies of the RDA package and one copy of the RDA package has been submitted to the Massachusetts Department of Environmental Protection Southeast Regional Office.

Please advertise this matter for a public hearing at the Commission's next scheduled meeting. Should you have any questions concerning this submittal, or require additional information please contact me at jiahuiwang@vhb.com or 617-607-2969.

Sincerely,

Jiahui Wang
Environmental Planner

cc: Town of Mansfield
MassDEP SERO

Request for Determination of Applicability

Multimodal Accommodations on School Street (MassDOT Project No. 609255)

Mansfield, MA

PREPARED FOR

Town of Mansfield
6 Park Row
Mansfield, MA 02048

PREPARED BY

1 Cedar Street
Providence, RI 02903
401.272.8100

December 2023

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- Figure 2 – Aerial Map
- Figure 3 – NHESP Map
- Figure 4 – FEMA Map

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Wetland Resource Areas 2
Work Description 3
Regulatory Compliance 4
Mitigation Measures 4
Summary 5

Attachment B – Project Plans

WPA Form 1

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

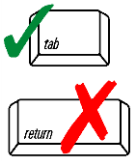
WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Mansfield
Municipality

A. General Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Town of Mansfield (Joshua Reinke) | First Name
 | Last Name
6 Park Row | Address
Mansfield | City/Town
MA | State
02048 | Zip Code
508-261-7462 | Phone Number
jreinke@mansfieldma.com | Email Address

2. Property Owner (if different from Applicant):

First Name | Last Name
Address
City/Town | State | Zip Code
Phone Number | Email Address (if known)

3. Representative (if any)

Jiahui | First Name
Wang | Last Name
Vanasse Hangen Brustlin, Inc | Company Name
99 High Street, Floor 13 | Address
Boston | City/Town
MA | State
02110 | Zip Code
617-607-2969 | Phone Number
Jiahuiwang@vhb.com | Email Address (if known)

B. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

School Street from Spring Street to West Street | Street Address
Mansfield | City/Town

How to find Latitude and Longitude

42.01886 | Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX)
-71.22565 | Longitude (Decimal Degrees Format with 5 digits after decimal e.g. -XX.XXXXX)

and how to convert to decimal degrees

NA | Assessors' Map Number
NA | Assessors' Lot/Parcel Number

b. Area Description (use additional paper, if necessary):

Roadway along School Street from Spring Street to West Street in Mansfield MA (See Figures 1 ad 2)

c. Plan and/or Map Reference(s): (use additional paper if necessary)

MASSDOT HIGHWAWAY DIVISION, MANSFIELD SCHOOL STREET | Title
11/6/2023 | Date
Title
Date

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands
WPA Form 1- Request for Determination of Applicability
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Mansfield
Municipality

B. Project Description (cont.)

2. a. Activity/Work Description (use additional paper and/or provide plan(s) of Activity, if necessary):

Town of Mansfield is proposing the roadway reconstruction with multimodal accommodations along School Street from Spring Street to West Street (approximately 2,500 Feet) in Mansfield, MA to accommodate all roadway users and improve traffic operations.

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

310 CMR 10.02(2)(b)2p

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- ☐ Single family house on a lot recorded on or before 8/1/96
- ☐ Single family house on a lot recorded after 8/1/96
- ☐ Expansion of an existing structure on a lot recorded after 8/1/96
- ☐ Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
- ☐ New agriculture or aquaculture project
- ☐ Public project where funds were appropriated prior to 8/7/96
- ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- ☐ Residential subdivision; institutional, industrial, or commercial project
- ☐ Municipal project
- ☐ District, county, state, or federal government project
- ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Mansfield
Municipality

C. Determinations

1. I request the Mansfield Conservation Commission make the following determination(s). Check any that apply:

☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.

☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.

☒ c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.

☒ d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance** or **bylaw** of:

Mansfield
Name of Municipality

☐ e. whether the following **scope of alternatives** is adequate for Activities in the Riverfront Area as depicted on referenced plan(s).

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Signatures:

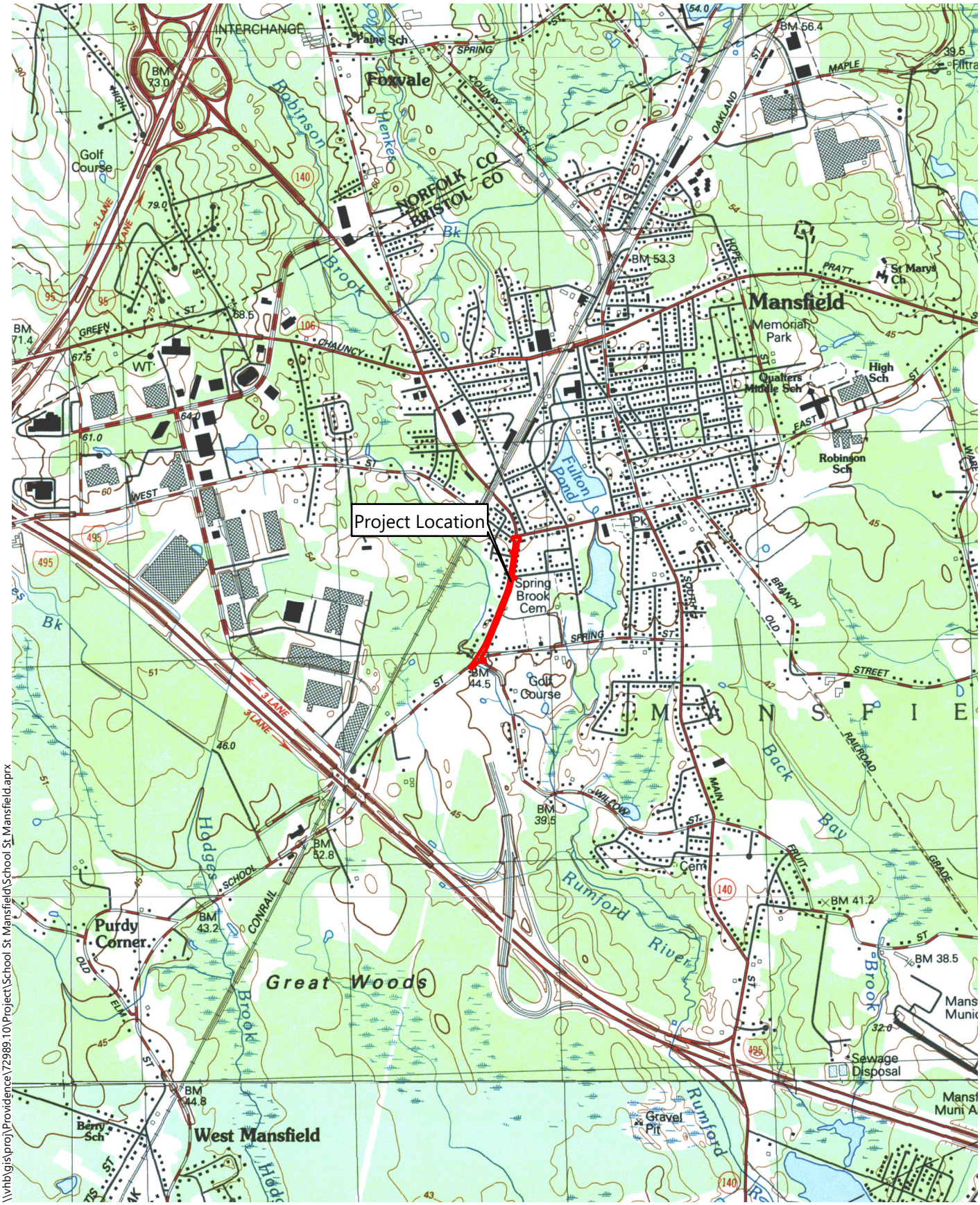
I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant — Date: 12.4.23

Signature of Representative (if any) — Date: 12/01/2023

Request for Determination of Applicability Figures

- Figure 1 – USGS Map
- Figure 2 – Aerial Map
- Figure 3 – NHESP Map
- Figure 4 – FEMA Map



\\vhb\gis\proj\Providence\72989.10\Project\School St Mansfield\School St Mansfield.aprx

0 1000 2000 4000 Feet

Project Location

Multimodal Accommodations on School Street | Mansfield, MA

USGS Locus Map

Source: VHB, MassGIS



0 250 500 1000 Feet

Project Location

Multimodal Accommodations on School Street | Mansfield, MA

Aerial Locus

Source: VHB, MassGIS



Multimodal Accommodations on School Street | Mansfield, MA

No Certified Vernal Pools, NHESP Estimated/Priority Habitat in project area.

NHESP Locus

Source: VHB, MassGIS



0 250 500 1000 Feet

Project Location

1% Annual Chance Flood Hazard

0.2% Annual Chance Flood Hazard or Area with Reduced Risk Due to Levee

Multimodal Accommodations on School Street | Mansfield, MA

FEMA Locus

Source: VHB, MassGIS

Attachment A
Request for Determination of Applicability Narrative

- Introduction
- Site Description
- Wetland Resource Areas
- Work Description
- Regulatory Compliance
- Mitigation Measures
- Summary

Attachment A - Request for Determination of Applicability Narrative

This Request for Determination of Applicability (RDA) is filed pursuant to the Massachusetts Wetlands Protection Act (WPA) (MGL Chapter 131, Section 40[1]) and its implementing regulations (310 CMR 10.00[2]), and the Mansfield Wetlands Bylaw, Chapter 220[3].

Introduction

The Town of Mansfield (the 'Applicant') is proposing roadway reconstruction with multimodal accommodations (the 'Project') along School Street from Spring Street to West Street (approximately 2,500 Feet) in Mansfield, MA (the 'Project Site') to accommodate all roadway users and improve traffic operations.

Portions of the Project are located in the jurisdictional 100-foot buffer zone of the Bank and Bordering Vegetated Wetland (BVW) under the WPA and 25-foot No-disturb Zone under the Mansfield Wetlands Bylaw.

Erosion control barriers and catch basin inlet protection are proposed to prevent short- and long-term impacts to wetland resource areas.

Site Description

School Street is an urban minor arterial that connects points south including Attleboro and Mansfield Crossing (a development adjacent to Interstate 495 and Route 140) to downtown Mansfield through West Street, Copeland Drive, and subsequently Route 106. Neighboring properties of the Project Site are primarily in residential use Refer to Figure 1 and 2.

The School Street/Copeland Drive/West Street intersection at the northern Project limits is a signalized intersection, while the School Street/Spring Street intersection at the southern Project Limits is an unsignalized intersection and is operated under stop control for the minor approaches. There is an old, deteriorated sidewalk along the east side of School Street that extends from approximately 300 feet north of Spring Street to West Street, however, there are no sidewalks along the west side of School Street or

[1] Massachusetts General Laws, 1972. Title XIX, Chapter 131, Section 40: Removal, fill, dredging or alteration of land bordering waters.

[2] MassDEP, 2014. Commonwealth of Massachusetts Regulations, 310 CMR 10.00: Wetlands Protection.

[3] Town of Mansfield, 2015. Chapter 220 Wetlands.

along the side streets. There are also no designated accommodations for bicyclists within the Project Site.

According to the most recently available data provided by the Massachusetts Natural Heritage and Endangered Species Program[4] (NHESP), the Project Site is not located within Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife. There are no certified vernal pools on or near the Project Site, but there are potential vernal pools in the vicinity of the Project Site (Figure 3).

The most recently issued Flood Insurance Rate Map (FIRM)[5] for the area produced by the Federal Emergency Management Agency (FEMA) indicates that the Project Site is not located within floodplain (Figure 4).

The Project Site is also not located within an Area of Critical Environmental Concern (ACEC)[6] or an area designated as an Outstanding Resource Water (ORW)[7].

According to the Natural Resources Conservation Service (NRCS) soil survey[8], the south portion of the Project Site contains excessively drained Merrimac fine sandy loam soils and north portion of the Site contains excessively drained Hinckley loamy sand soils.

Wetland resource areas near the Project Site are described below.

Wetland Resource Areas

Wetland resource areas in the vicinity of the Project Site were delineated by the Mansfield Conservation Agent in November 2019 in accordance with methods developed by the DEP[9] and the U.S. Army Corps of Engineers[10] and with respect to the WPA. Based on the consultation with the Mansfield Conservation Commission, there are two areas containing wetlands resources near the Project Site (See Table 1).

The first wetland resource is a culverted intermittent stream (flags C1-4 and D1-3), which was delineated at west side of School Street and south of the intersection of School Street/Spring Street. According to records provided by the Mansfield Conservation Agent, this stream was previously documented as intermittent in accordance with 310 CMR 10.58(2)(a)1.d and as such does not receive a 200-foot Riverfront Area. Wetland resource areas associated with this intermittent stream include Bank and Land under Water Bodies and Waterways (LUWW), which have a 25-foot No-disturb Zone under the Mansfield Wetlands Bylaw. The Bank also has a 100-foot buffer zone from the limits of the Bank that is established under the WPA.

[4] NHESP, 2021. *Massachusetts Natural Heritage Atlas. 15th Edition*.

[5] Federal Emergency Management Agency, National Hazard Flood Layer, Digital Flood Insurance Rate Map (DFIRM); FIRM Panel #25017C0534E.

[6] Massachusetts Executive Office of Energy and Environmental Affairs, 2009.

[7] DEP, 2010. Designated Outstanding Resource Waters of Massachusetts.

[8] Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey.

[9] DEP, 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act.*

[10] USACE, 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0.*

A second wetland resource, BVW (flags E 1-14), was delineated further north within the forested area on the west side of School Street. The BVW has a 100-foot Buffer Zone under the WPA and a 25-foot No-disturb Zone under the Mansfield Wetlands Bylaw.

The resource areas and their buffer zones are depicted on the attached Project Plans (Attachment B).

Table 1 Delineated Resource Areas

Wetland Name	Flag Numbers	Location	Associated Wetland Resources
Culverted Intermittent Stream	C1-4 and D1-3	West of School Street; South of Intersection of School Street/Spring Street; Station 14+00	Bank and LUWW
Wetland	E1-14	West of School Street, near the property at 71 School Street, Mansfield MA; Station 23+25	BVW

Note: LUWW = Land Under Waterways; BVW = Bordering Vegetated Wetlands
Source: Mansfield Conservation Commission Agent, 2019; VHB, 2023.

Work Description

The Applicant is proposing to reconstruct School Street from Spring Street to West Street in Mansfield, MA. The Project will improve accessibility, connectivity, and mobility for all users, including pedestrians, bicyclists, and motor vehicles, and upgrade the drainage system.

The proposed reconstruction will include full depth pavement and installation of bicycle lanes, new curbing, sidewalks, ADA compliant ramps, crosswalks, and a closed drainage system. The roadway will be slightly widened to accommodate the sidewalks and bicycles, while the northbound approach to the School Street/Spring Street intersection will be tightened to define traffic movements. The proposed shoulder/sidewalks will be approximately 5 feet wide on the west side of Spring Street and 8 feet wide on the east side. The proposed ground elevation will be lowered in order to add sidewalks along the east and west side of the roadway without negatively impacting adjacent properties/driveways. Water and gas utility relocations will be incorporated to allow for the roadway and drainage improvements. Refer to the Project Plans in Attachment B for details.

Thirty-five (35) easements will be required along the length of the project to accommodate the proposed work. This includes thirty-four (34) temporary construction easements for grading and one (1) permanent easement for sidewalk construction.

Work in the Buffer Zone

Two small portions of the proposed reconstruction work will be located within the 100-foot buffer zone to the delineated Bank and BVW, respectively. This work will result in a total of 19,700 Square Feet of temporary and permanent alterations to the buffer zone. Minor ground disturbance due to the roadway reconstruction will be located within the 25-foot No-disturb Zone near the School Street/Spring Street intersection, which will result in a *de minimis* change to the existing ground condition. Refer to the Project Plans in Attachment B for detail.

Regulatory Compliance

The Project will improve the existing roadway and drainage patterns throughout the Project Site. The proposed work will be conducted in select locations within the 100-ft buffer zone, resulting in approximately 19,700 Square Foot of impact to the buffer zone. The majority of said work meets the definition of minor activities under WPA regulations 310 CMR 10.02(2)(b) 2p, and therefore is not subject to the regulations of the WPA.

> *310 CMR 10.02(2)(b) 2p: Pavement repair, resurfacing, and reclamation of existing roadways within the right-of-way configuration provided that the roadway and shoulders are not widened, no staging or stockpiling of materials, all disturbed road shoulders are stabilized within 72 hours of completion of the resurfacing or reclamation, and no work on the drainage system is performed, other than adjustments and/or repairs to respective structures within the roadway.*

Additional ground disturbances that are not exempted under the WPA will result in a *de minimis* change to the existing ground conditions and are not anticipated to impact wetland resource area functions or values.

Furthermore, according to the Mansfield Wetland Bylaw, Chapter 220-2 B (2), the Project is exempted from the bylaw regulations because the proposed work involves the reconstruction of an existing public way and associated drainage systems without substantial enlargement, and the Mansfield Conservation Commission was notified prior to the initiation of the Project.

Mitigation Measures

A suite of mitigation measures is proposed to prevent short- and long-term impacts to wetland resource areas. Mitigation measures proposed for this project include dust control, erosion control barriers and catch basin inlet protection.

Erosion Control Barriers

Prior to any ground disturbance, an approved erosion control barrier will be installed at the downgradient limit of work in areas identified on the plans. As construction progresses, additional barriers will be installed around the base of stockpiles and other erosion prone areas. The barriers will be entrenched into the substrate to prevent underflow.

If sediment has accumulated to a depth which impairs proper functioning of the barrier, it will be removed by hand or by machinery operating upslope of the barriers. This material will be either reused at the Project Site or disposed of at a suitable offsite location. Any damaged sections of the barrier will be repaired or replaced immediately upon discovery.

Catch Basin Inlet Protection

The inlets of existing and proposed catch basins will be protected from sediment inflow during the work period by installing Silt Sacks®. The outlet of the proposed catch basins will be protected by installing hoods to enhance catch basin performance. If sediment has collected in the Silt Sack® to a point where it impairs proper functioning, it will be removed and will be either reused onsite or disposed of at a suitable offsite location.

Dust Control

The erosion and sediment control program includes provisions to minimize the generation of dust during dry and windy conditions. When necessary, larger areas of exposed soil will be wetted to prevent wind borne transport of fine-grained sediment. Enough water shall be applied to wet the upper 0.5 inches of soil. The water will be applied as a fine spray to prevent erosion. A water truck will be kept on the property (or at a nearby location) to facilitate this practice.

Summary

The Applicant is proposing roadway reconstruction with multimodal accommodations along School Street from Spring Street to West Street (approximately 2,500 Feet) in Mansfield, MA to accommodate all roadway users and improve traffic operations.

As proposed, several small portions of the Project are located in the jurisdictional 100-foot buffer zone of the Bank and BVW under the WPA and 25-foot No-disturb Zone under the Mansfield Wetlands Bylaw. As demonstrated in the Regulatory Compliance section above, the Mansfield Wetlands Bylaw is not applicable to the Project and the majority of the proposed work in buffer zones is exempt under the WPA. The non-exempt work in the buffer zones will result in a *de minimis* change to the existing ground conditions and is not anticipated to impact wetland resource area functions or values.

The Applicant respectfully requests that the Mansfield Conservation Commission find these measures protective of the interests identified in the WPA and Mansfield Wetlands Bylaw and issue a Negative Determination of Applicability.

Attachment B
Project Plans

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

PLAN AND PROFILE OF

SCHOOL STREET

IN THE TOWN OF

MANSFIELD

BRISTOL COUNTY

FEDERAL AID PROJECT NO.

75% SUBMITTAL

MANSFIELD
SCHOOL STREET

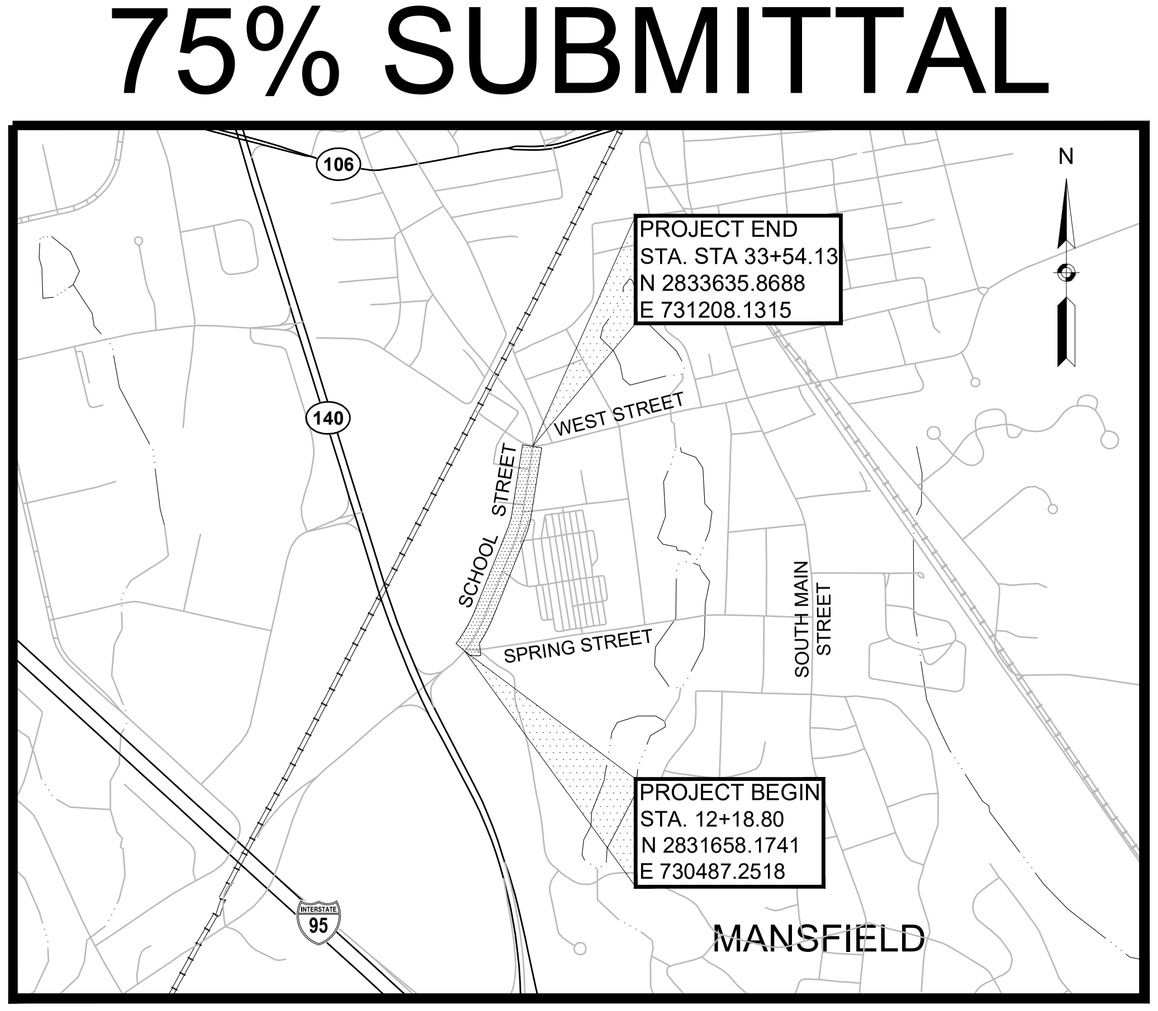
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	1	71
PROJECT FILE NO. 609255			

TITLE SHEET & INDEX

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & ABBREVIATIONS
3	GENERAL NOTES
4	KEY PLAN
5	TYPICAL SECTIONS
6-10	CONSTRUCTION PLANS
11-15	PROFILES
16-20	UTILITY PLANS
21-28	CONSTRUCTION DETAILS
29-52	CROSS SECTIONS



0 1000 2000 3000 4000

SCALE: 1" = 1000'

LENGTH OF PROJECT = 2,135.33 FEET = 0.404 MILES

DESIGN DESIGNATION (SCHOOL STREET)

DESIGN SPEED	35 MPH
ADT (2019)	13,400
ADT (2029)	14,100
K	0.10%
D	59% SB
T (PEAK HOUR)	4.4%
T (AVERAGE DAY)	2.6%
DHV	1,400
DDHV	880
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL

DATE	DESCRIPTION	REV #
11/06/2023	75% DESIGN SUBMISSION	3
10/21/2022	REVISED 25% DESIGN SUBMISSION	2
02/26/2021	25% DESIGN SUBMISSION	1

massDOT Massachusetts Department of Transportation Highway Division

APPROVED

CHIEF ENGINEER DATE

609255_HD(COV).DWG Plotted on 6-Nov-2023 10:02 PM

Proposal No. 609255-130934

A00850-23

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
C	C	CABLE MANHOLE
D	D	DRAINAGE MANHOLE
E	E	ELECTRIC MANHOLE
G	G	GAS MANHOLE
M	M	MISC MANHOLE
S	S	SEWER MANHOLE
T	T	TELEPHONE MANHOLE
W	W	WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
GB/DH		GRANITE BOUND / DRILL HOLE
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
OW		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99		CONTOURS (PHOTOGRAMMETRIC DATA)
12" RCP D		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
40"X60" D		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
4" G		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
8" VCP S		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
T		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
8"W		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		EROSION AND SEDIMENT CONTROL BARRIER
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
100' BZ		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
℄		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
Ø1	Ø1	CONTROLLER PHASE
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		QUADRUPOLE WIRE LOOP DETECTOR
		BICYCLE WIRE LOOP DETECTOR, TYPE B-2
		VIDEO DETECTION CAMERA
		SINGLE POINT VIDEO DETECTION CAMERA
		VIDEO DETECTION ZONE
		APS PEDESTRIAN PUSH BUTTON, SIGN AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD, WITH/WITHOUT BACKPLATE
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED, WITH/WITHOUT BACKPLATE
		FLASHING BEACON, WITH/WITHOUT BACKPLATE
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		SIGNAL POST AND BASE
		MAST ARM, SHAFT AND BASE
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		OVERHEAD SIGN
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE - SD2.022 (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
		YIELD LINE TRIANGLES - WHITE
	SL	STOP LINE - WHITE, 12" WIDTH
	CW	CROSSWALK-WHITE, WIDTH AS NOTED
	SWL	SOLID WHITE LINE, 6" WIDTH
	SYL	SOLID YELLOW LINE, 6" WIDTH
	SWCHL	SOLID WHITE CHANNELIZATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
	SYCHL	SOLID YELLOW CHANNELICATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
	BWL	BROKEN WHITE LINE, 6" WIDTH, 10' LINE W/30' GAPS
	BYL	BROKEN YELLOW LINE, 6" WIDTH, 10' LINE W/30' GAPS
	DWL	DOTTED WHITE LINE, 6" WIDTH, LENGTH AND SPACING AS NOTED
	WDWL	WIDE DOTTED WHITE LINE, 12" WIDTH, LENGTH AND SPACING AS NOTED
	WDWLEx	WIDE DOTTED WHITE LINE, 12" WIDTH, LENGTH AND SPACING AS NOTED
	DYL	DOTTED YELLOW LINE, 6" WIDTH, LENGTH AND SPACING AS NOTED
	DWLEx	DOTTED WHITE LINE EXTENSION, 6" WIDTH, 2' LINE W/6' GAPS
	DYLEx	DOTTED YELLOW LINE EXTENSION, 6" WIDTH, 2' LINE W/6' GAPS
	DBWL	DOUBLE WHITE LINE, 6" WIDTH
	DBYL	DOUBLE YELLOW LINE, 6" WIDTH
		BICYCLE LANE WORD, SYMBOL AND/OR ARROW - WHITE
		SHARED LANE - WHITE

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GC	GRANITE CURB
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	2	71
PROJECT FILE NO. 609255			

LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

GENERAL

PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REL	RELOCATED
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL

CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY DON'T WALK
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
← FR —	FLASHING RED LEFT ARROW
— FR →	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
← FY —	FLASHING YELLOW LEFT ARROW
— FY →	FLASHING YELLOW RIGHT ARROW
G	STEADY CIRCULAR GREEN
← G —	STEADY GREEN LEFT ARROW
— G →	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
↑ G	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
← R —	STEADY RED LEFT ARROW
— R →	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR YELLOW
← Y —	STEADY YELLOW LEFT ARROW
— Y →	STEADY YELLOW RIGHT ARROW
APS	ACCESSIBLE PEDESTRIAN SYSTEM

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Proposal No. 609255-130934

A008502-24

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	3	71
PROJECT FILE NO. 609255			

GENERAL NOTES

609255_HD(LEG).DWG Plotted on 6-Nov-2023 10:03 PM

Proposal No. 609255-130934

A00850-25

GENERAL NOTES:

1. THE SURVEY BASE PLAN WAS PREPARED BY SITE DESIGN ENGINEERING, LLC IN JANUARY, 2020, AND SUPPLEMENTED BY VHB IN FEBRUARY 2021.
2. THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT DIGSAFE TO REQUEST EXISTING UTILITY MARKOUT IN THE FIELD AT (888) DIG-SAFE.
5. DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
6. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED CONDUIT AND SIGNAL EQUIPMENT. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER.
7. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
8. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.
9. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
10. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
11. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
12. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
13. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
14. JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALANT.
15. AFTER MILLING OPERATIONS AND PRIOR TO PAVING THE SUPERPAVE INTERMEDIATE OR SURFACES COURSES THE ENGINEER SHALL EVALUATE THE MILLED SURFACE AND SHALL APPLY THE APPROPRIATE REPAIR METHOD IF REQUIRED.
16. EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
17. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
18. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
19. LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE PLANS.
20. IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
21. PROPOSED BOUNDS AHLL BE PLACED BY A LICENSED PROFESSIONAL SURVEYOR. THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.

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MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	4	71
PROJECT FILE NO. 609255			

KEY PLAN

LEGEND

- CONSTRUCTION PLANS
- CURB TIE AND GRADING PLANS
- TRAFFIC PLANS
- UTILITY PLANS
- TP-X TEST PIT
- C-X PAVEMENT CORE

BLISS AVENUE
COPELAND DRIVE
DAY AVENUE
CORAL STREET
SCHOOL STREET
SPRING STREET
WILLOW STREET

PROJECT END
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E731208.1315

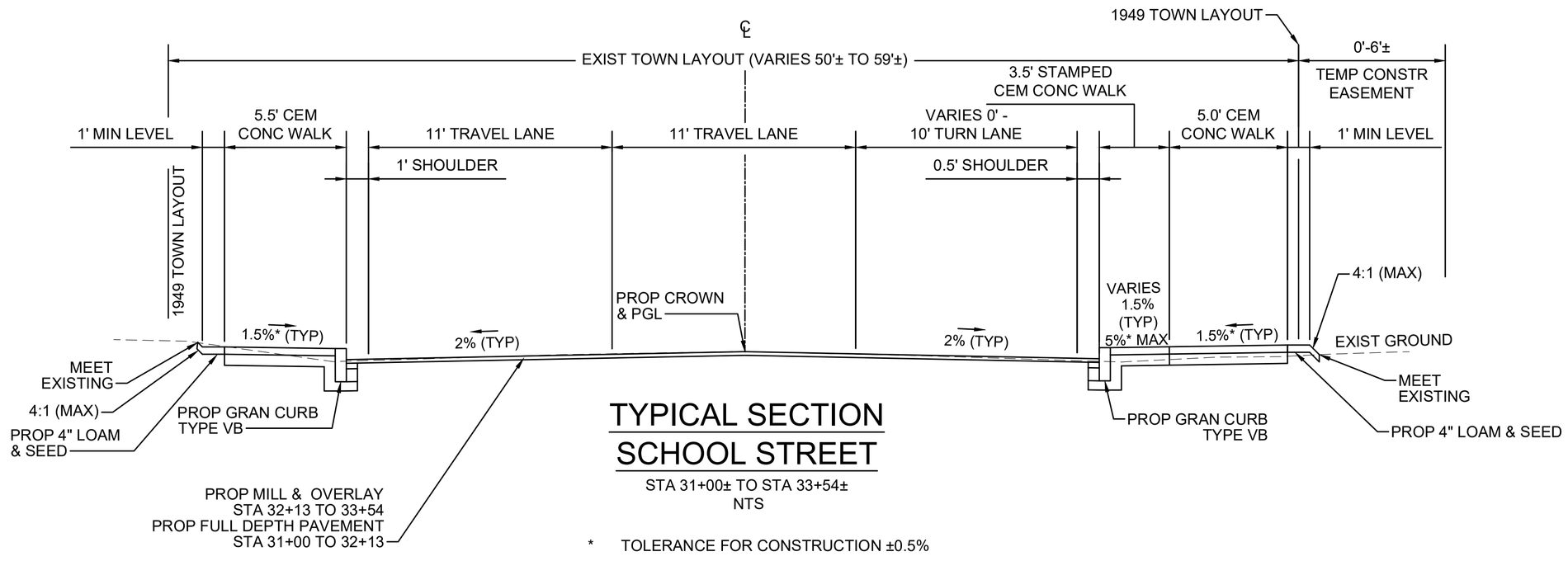
PROJECT BEGIN
STA 12+18.80
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SCALE: 1" = 80'

N

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	5	71
PROJECT FILE NO. 609255			

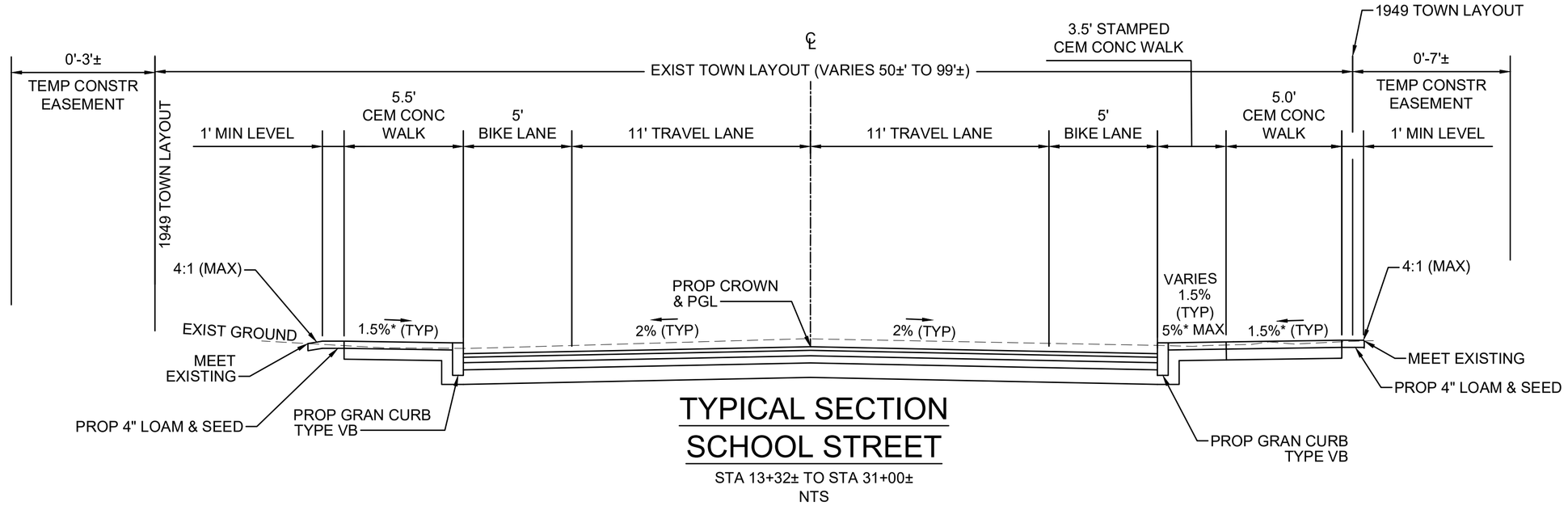
TYPICAL SECTIONS



TYPICAL SECTION
SCHOOL STREET

STA 31+00± TO STA 33+54±
NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%



TYPICAL SECTION
SCHOOL STREET

STA 13+32± TO STA 31+00±
NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT

SURFACE:	2"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
INTERMEDIATE:	3"	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER
BASE COURSE:	4"	DENSE GRADED CRUSHED STONE OVER
++ SUBBASE:	8"	GRAVEL BORROW, TYPE b

PROPOSED PAVEMENT MICROMILLING AND OVERLAY

SURFACE:	2"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5)
MILLING:	2"	PAVEMENT MICROMILLING VARIABLE DEPTH TO MEET PROPOSED GRADING

PROPOSED CEMENT CONCRETE WALK

SURFACE:	4"	CEMENT CONCRETE AIR ENTRAINED 4000 PSI, ¾", 610 OVER
++ SUBBASE:	8"	GRAVEL BORROW, TYPE b

PROPOSED CEMENT CONCRETE PEDESTRIAN CURB RAMP

SURFACE:	4"	CEMENT CONCRETE AIR ENTRAINED 4000 PSI, ¾", 610 OVER
SUBBASE:	8"	GRAVEL BORROW, TYPE b

PROPOSED CEMENT CONCRETE DRIVEWAY

SURFACE:	6"	CEMENT CONCRETE AIR ENTRAINED 4000 PSI, ¾", 610 OVER
++ SUBBASE:	8"	GRAVEL BORROW, TYPE b

PROPOSED STAMPED CEMENT CONCRETE WALK

SURFACE:	4"	CEMENT CONCRETE AIR ENTRAINED 4000 PSI 3/4", 610 (COLOR/STAMPED) 6"X6", W1.4xW1.4 WELDED WIRE MESH
++ SUBBASE:	8"	GRAVEL BORROW, TYPE B

PROPOSED GRAVEL DRIVEWAY

SURFACE:	8"	GRAVEL BORROW (TYPE b)

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE:	1½"	SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER
INTERMEDIATE:	2 ½"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER
++ SUBBASE:	8"	GRAVEL BORROW, TYPE B

++ WHERE EXISTING GRAVEL IS FOUND TO BE SUITABLE, THE EXISTING GRAVEL MAY BE USED IN PROPOSED SUBBASE, AFTER APPROVAL BY THE ENGINEER.

GENERAL NOTES:

1. ALL HOT MIX ASPHALT PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 QUALITY ASSURANCE FOR HMA.
2. ASPHALT EMULSION FOR TACK COAT (ITEM 452.) SHALL BE SPRAY APPLIED FOR DOUBLE OVERLAP COVERAGE AT 0.08 GALLONS PER SQUARE YARD OVER MILLED SURFACES AND 0.07 GALLONS PER SQUARE YARD OVER SMOOTH SURFACES.
3. HMA JOINT ADHESIVE (ITEM 453.) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.
4. ALL HOT MIX ASPHALT WALKS AND DRIVEWAYS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
5. SURFACE PAVING TO BE COMPLETED AT THE END OF THE PROJECT AND AS DIRECTED WHEN IT CAN BE PLACED IN ITS ENTIRETY.

609255_HD(TYP).DWG Plotted on 6-Nov-2023 10:04 PM
Proposal No. 609255-130934
A008650-27

HIGHWAY GUARD DETAILS

REM EXIST GUARDRAIL
STA 13+06 TO 50+52 RT

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 35

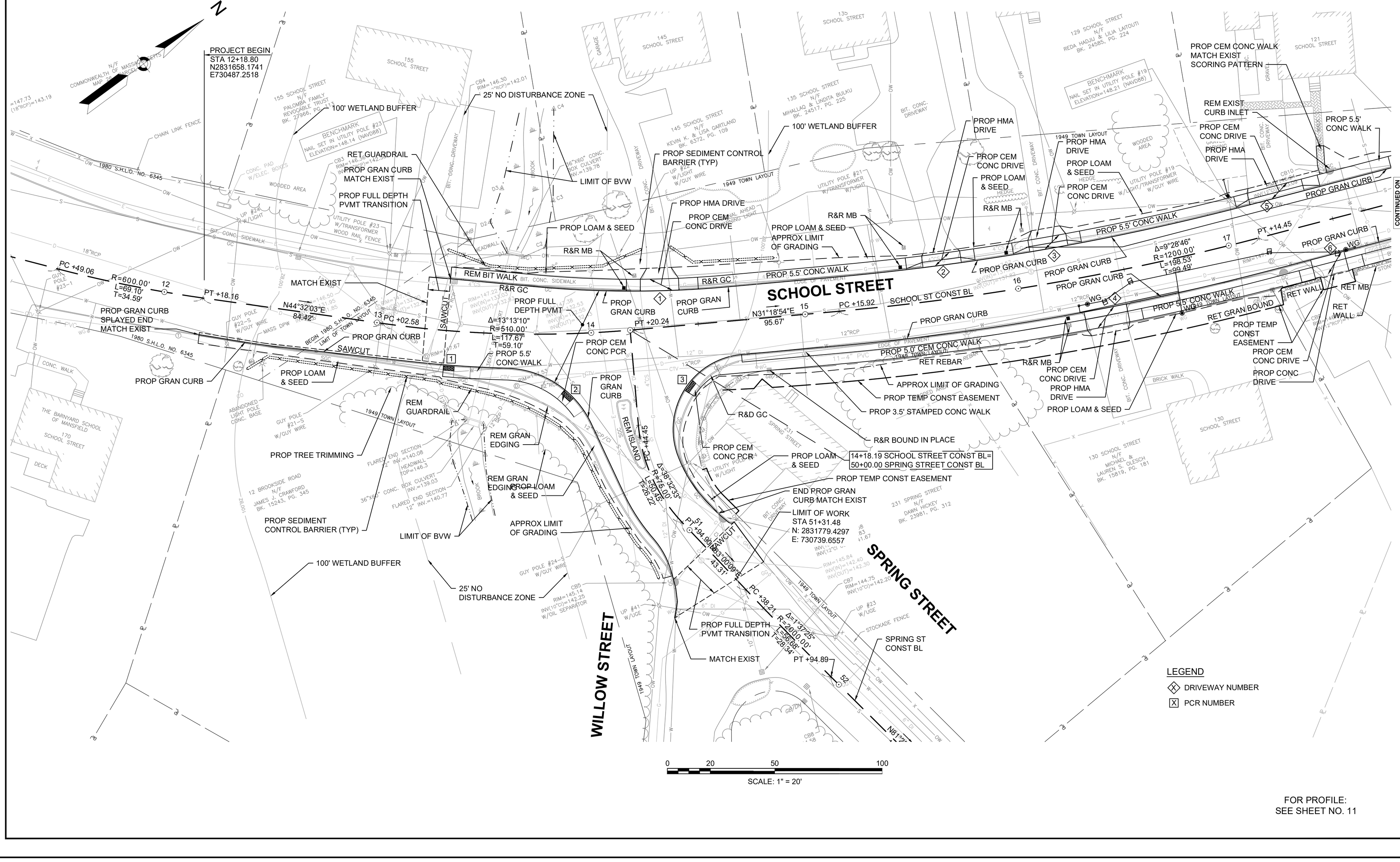
DRAINAGE DETAILS

SEE SHEET 35

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	6	71
PROJECT FILE NO. 609255			

CONSTRUCTION PLANS



FOR PROFILE:
SEE SHEET NO. 11

609255_HD(GEN).DWG Plotted on 6-Nov-2023 10:05 PM

Proposal No. 609255-130934

A00850-28

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 36

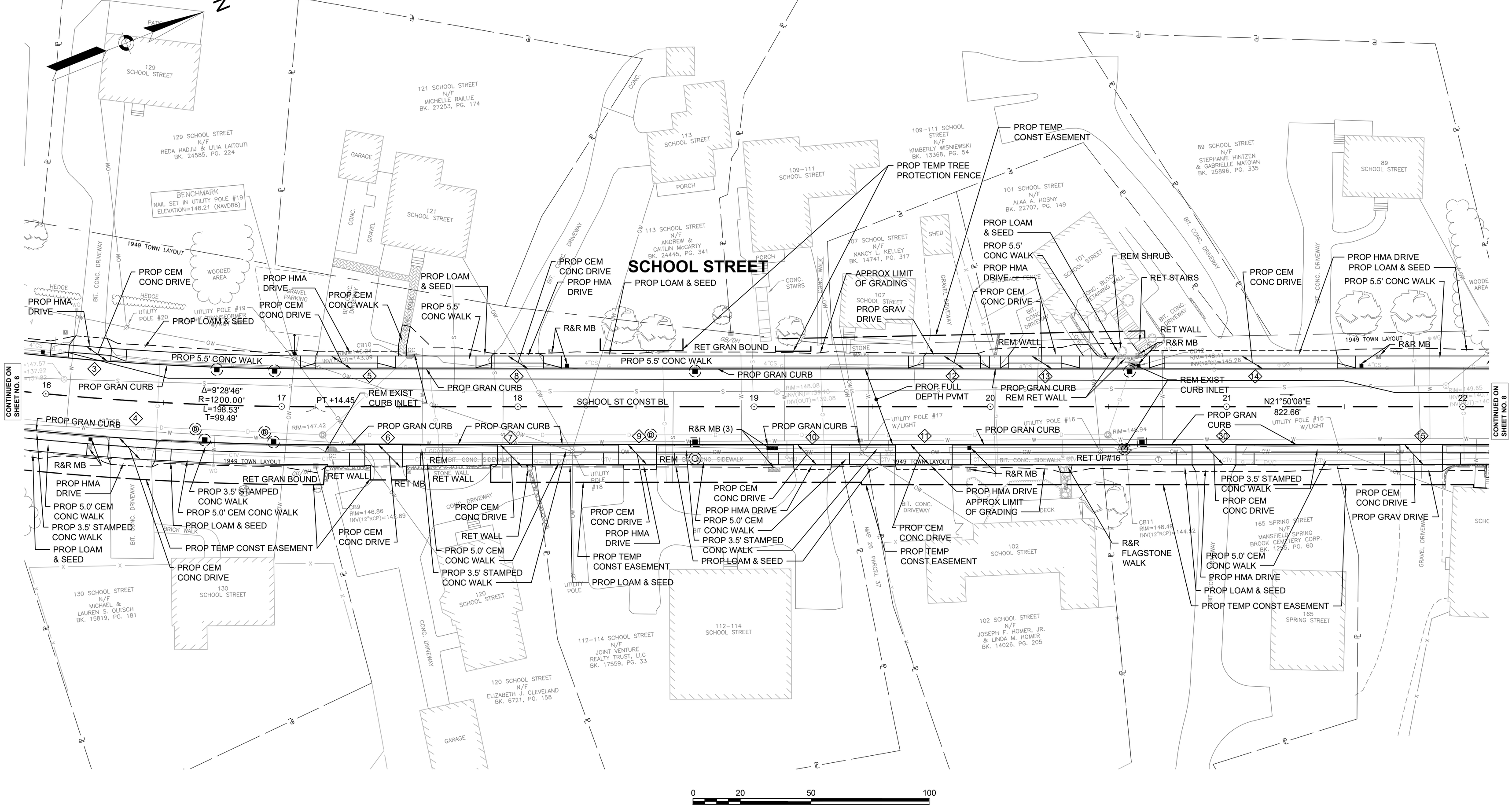
DRAINAGE DETAILS

SEE SHEET 36

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	7	71
PROJECT FILE NO. 609255			

CONSTRUCTION PLANS



0 20 50 100

SCALE: 1" = 20'

FOR PROFILE:
SEE SHEET NO. 12

609255_HD(GEN).DWG Plotted on 6-Nov-2023 10:05 PM

Proposal No. 609255-130934

A00850-29

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 37

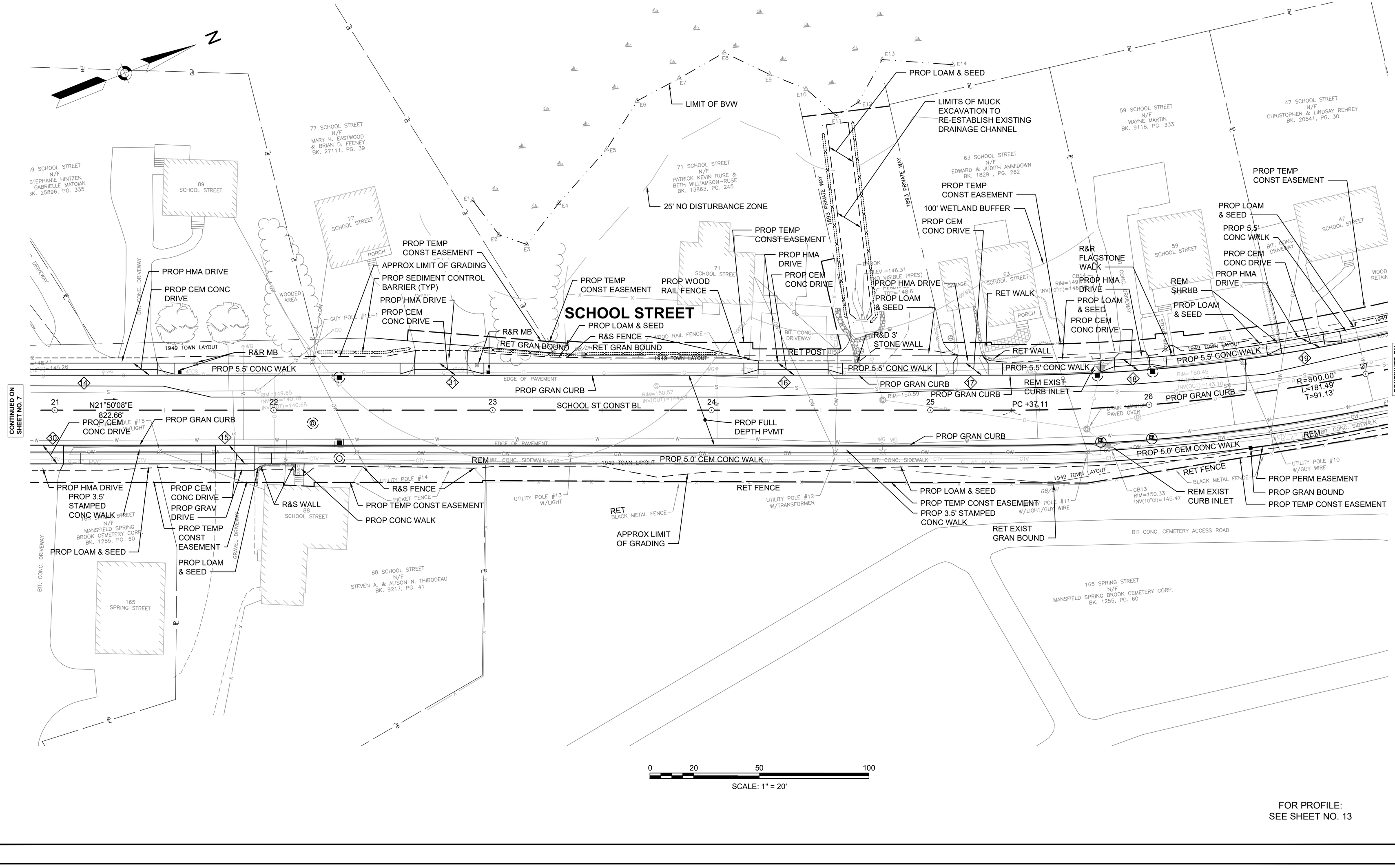
DRAINAGE DETAILS

SEE SHEET 37

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	8	71
PROJECT FILE NO. 609255			

CONSTRUCTION PLANS



0 20 50 100

SCALE: 1" = 20'

FOR PROFILE:
SEE SHEET NO. 13

609255_HD(GEN).DWG Plotted on 6-Nov-2023 10:06 PM

Proposal No. 609255-130934

A00850-30

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE UTILITY PLANS

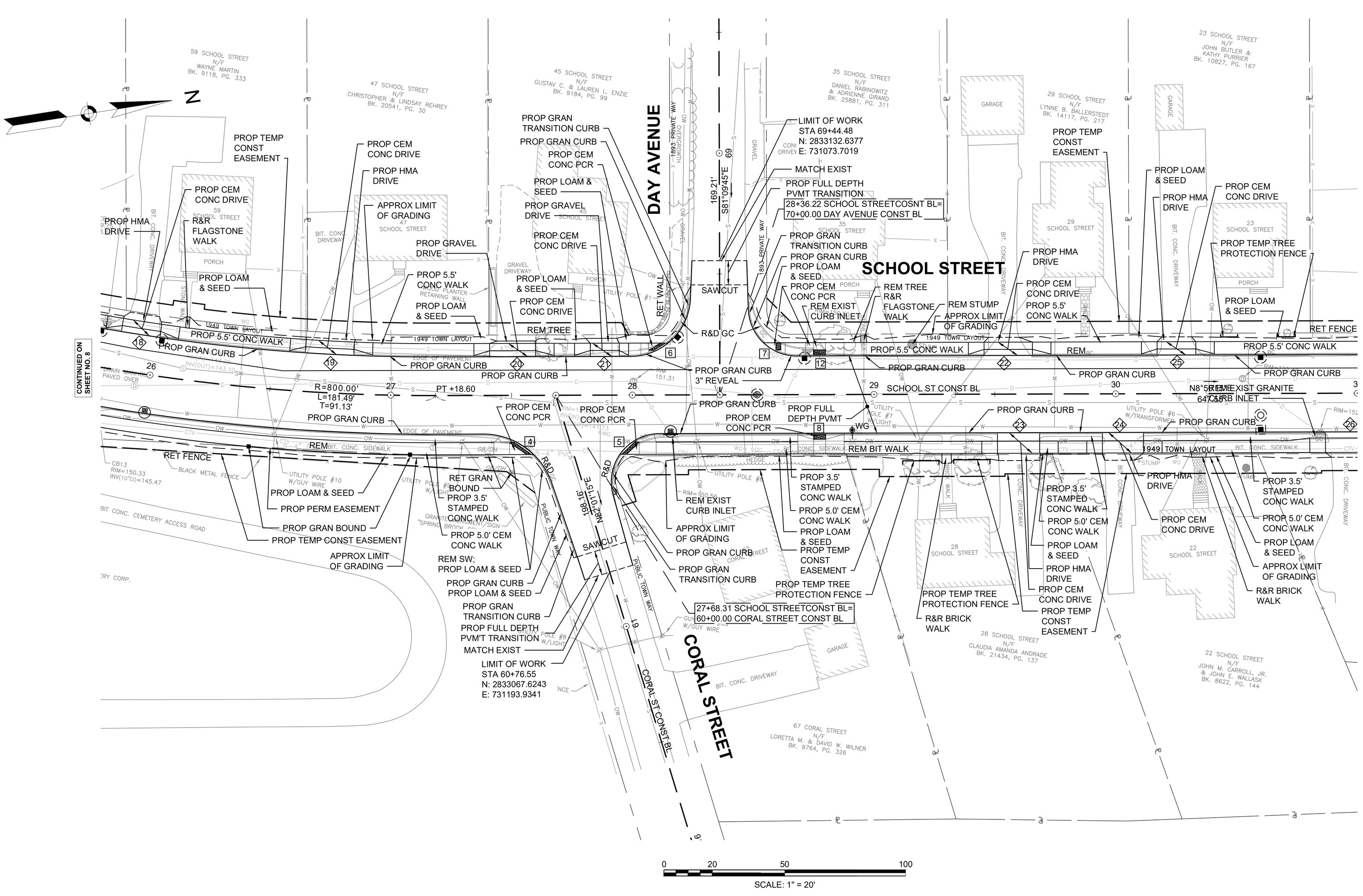
DRAINAGE DETAILS

SEE UTILITY PLANS

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	9	71
PROJECT FILE NO. 609255			

CONSTRUCTION PLANS



FOR PROFILE:
SEE SHEET NO. 14

A00850-31

609255_HD(GEN).DWG Plotted on 6-Nov-2023 10:06 PM

Proposal No. 609255-130934

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

SEE SHEET 25

WATER SUPPLY ALTERATIONS

SEE SHEET 39

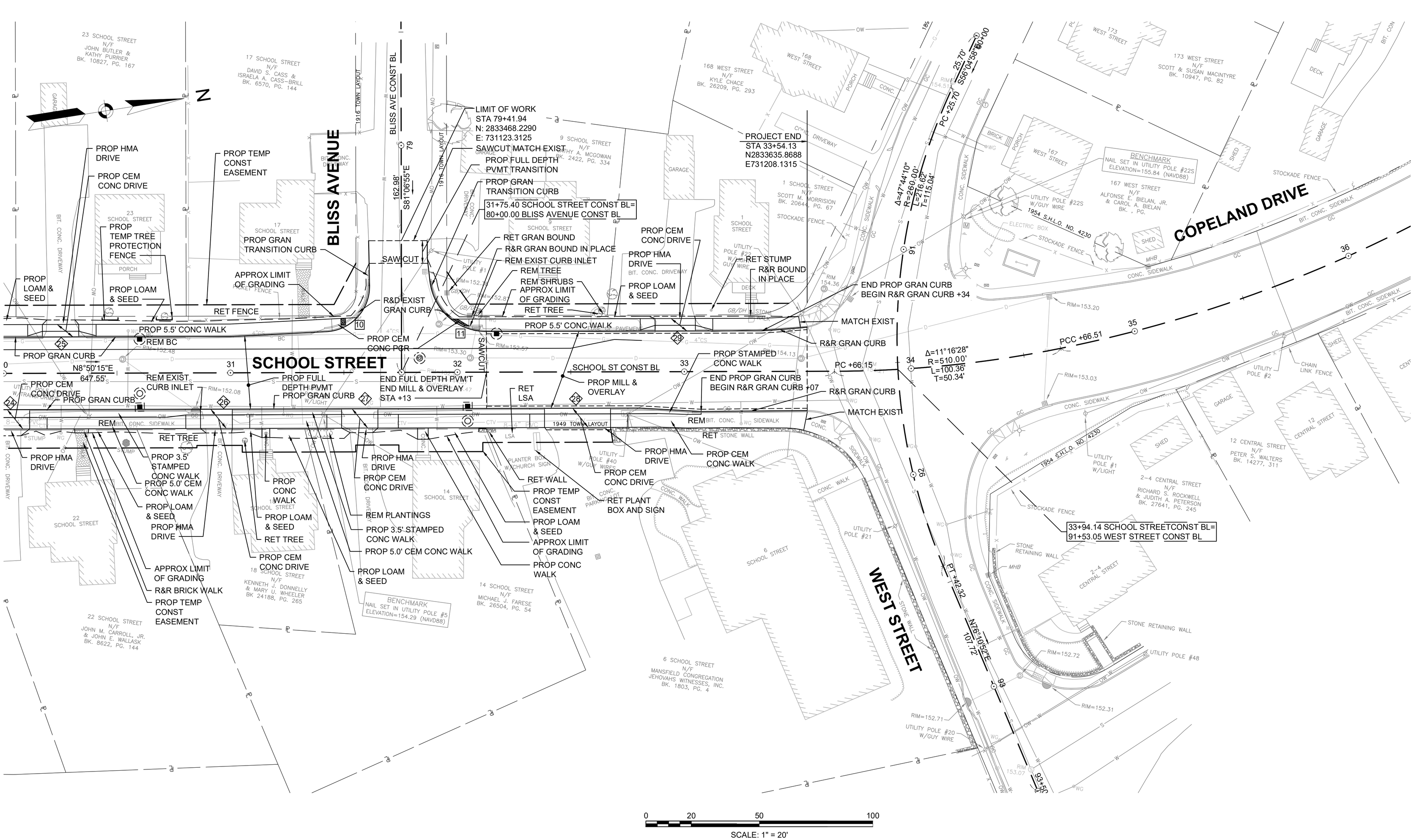
DRAINAGE DETAILS

SEE SHEET 39

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	10	71
PROJECT FILE NO. 609255			

CONSTRUCTION PLANS



609255_HD(GEN).DWG Plotted on 6-Nov-2023 10:06 PM

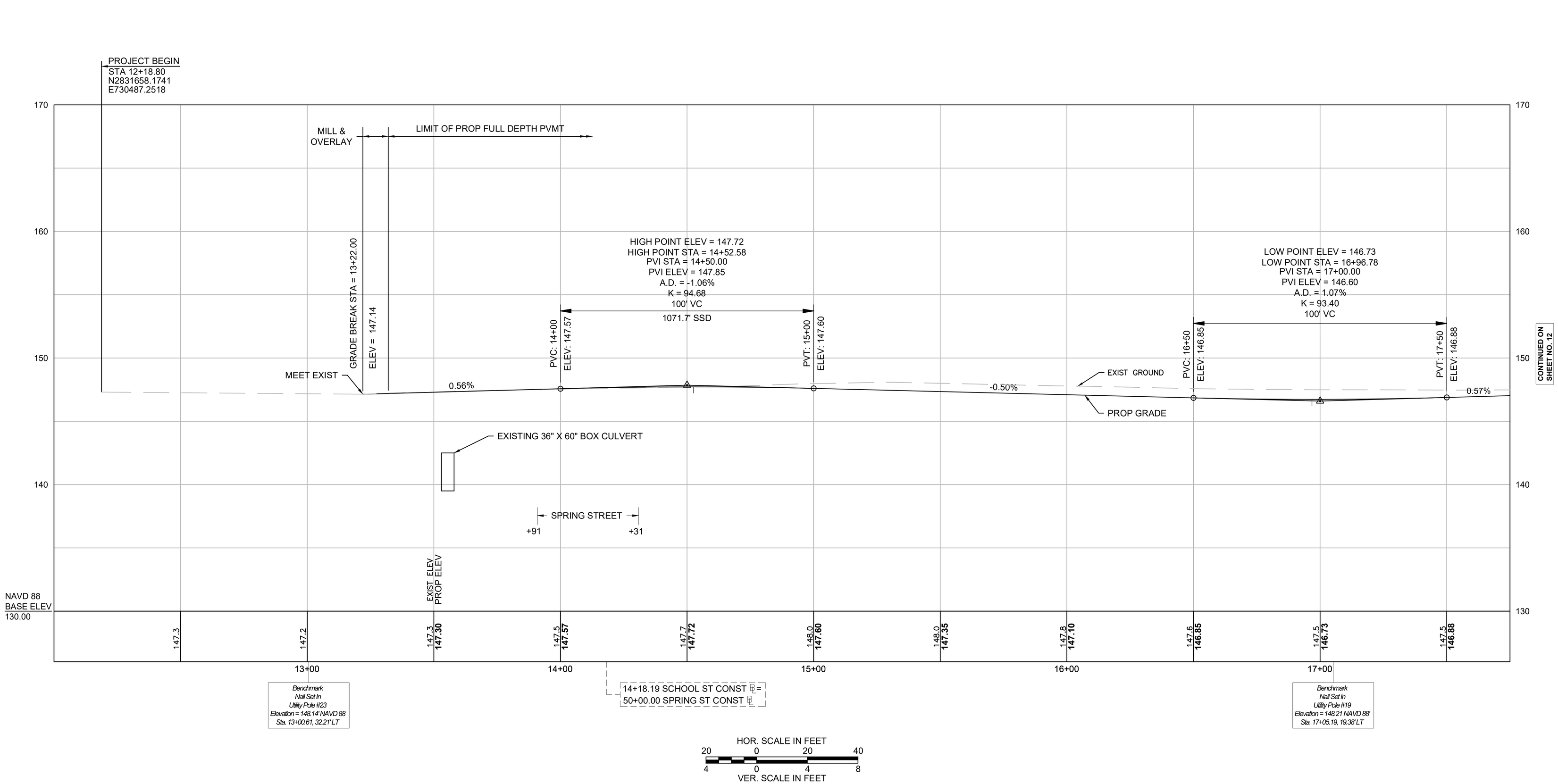
Proposal No. 609255-130934

A008050-32

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	11	71
PROJECT FILE NO. 609255			

PROFILES



FOR CONSTRUCTION PLAN:
SEE SHEET NO. 6

609255_HD(PRF).DWG Plotted on 6-Nov-2023 10:07 PM

Proposal No. 609255-130934

A0085033

609255_HD(PRF).DWG Plotted on 6-Nov-2023 10:07 PM

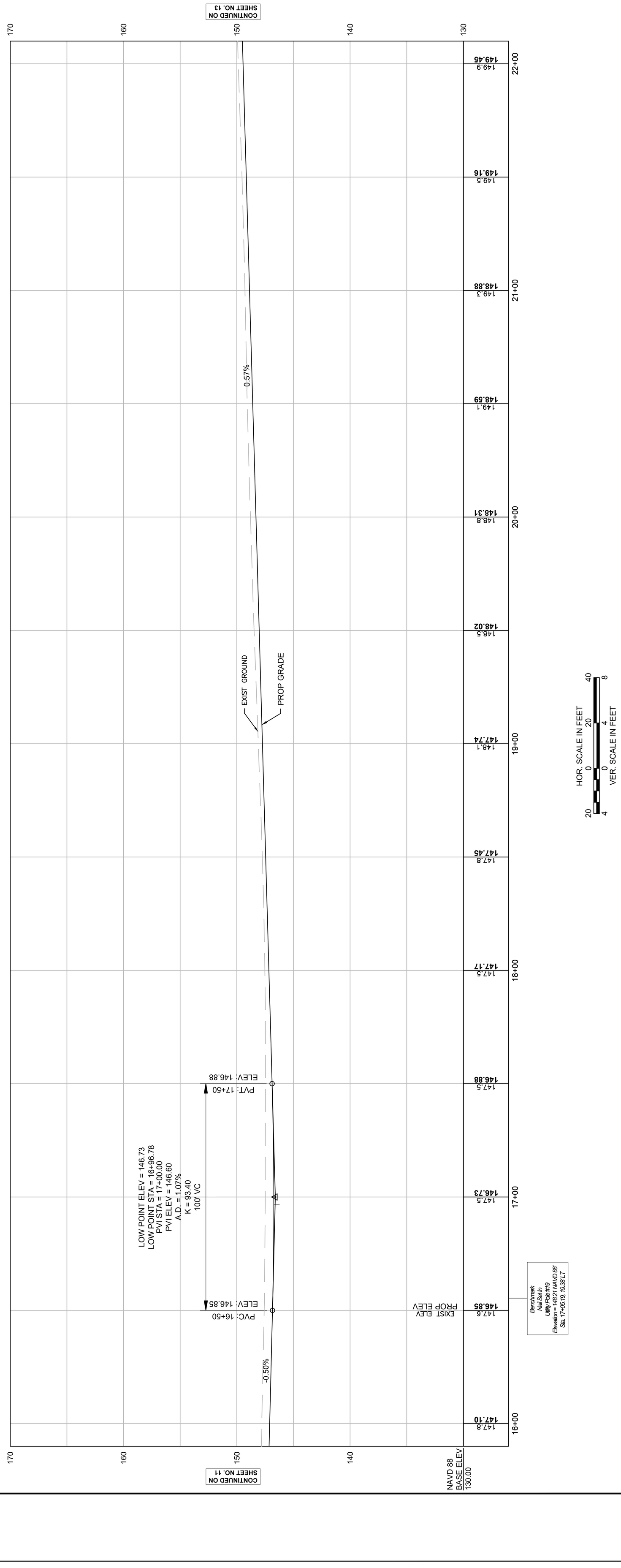
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	12	71

PROJECT FILE NO. 609255

PROFILES

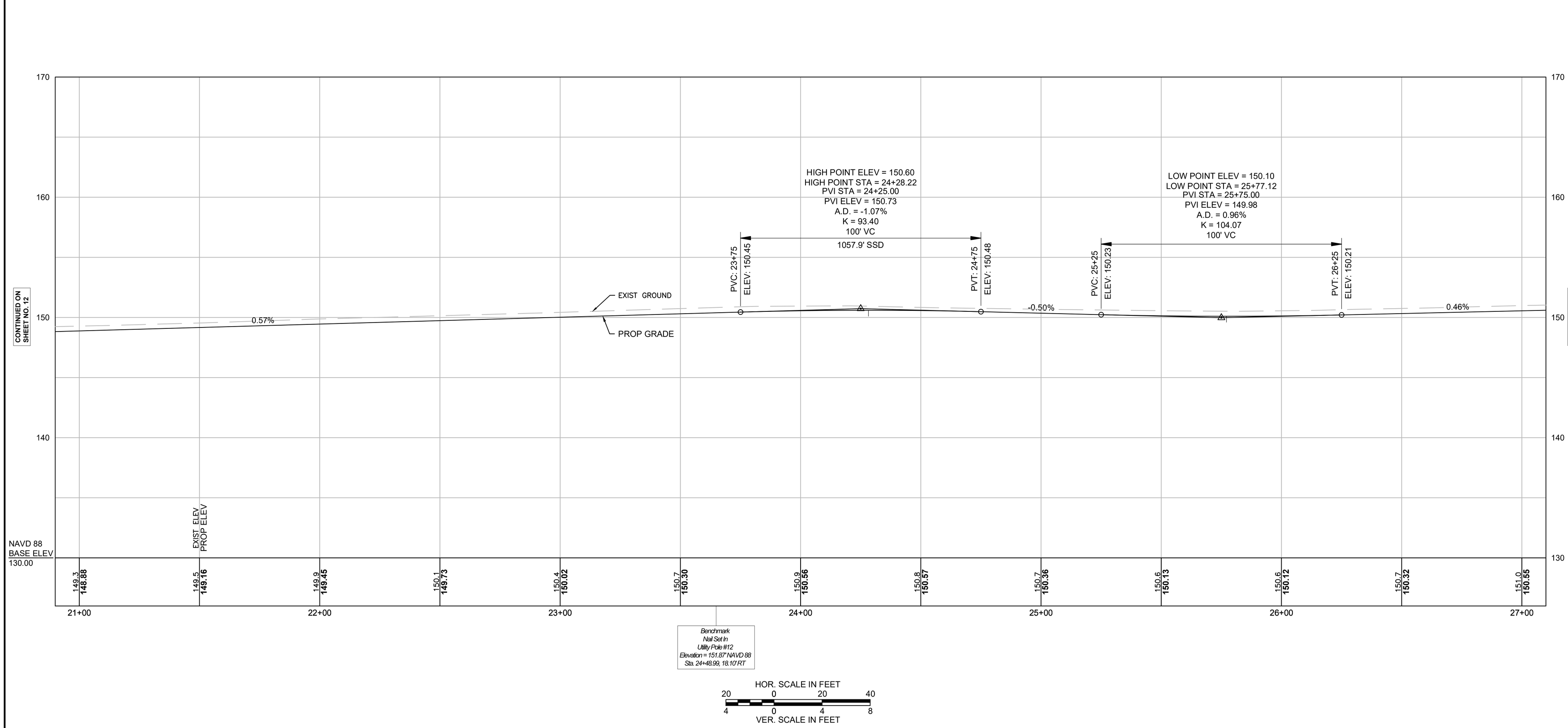
FOR CONSTRUCTION PLAN:
SEE SHEET NO. 7



MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	13	71
PROJECT FILE NO. 609255			

PROFILES



FOR CONSTRUCTION PLAN:
SEE SHEET NO. 8

609255_HD(PRF).DWG Plotted on 6-Nov-2023 10:07 PM

Proposal No. 609255-130934

A008535

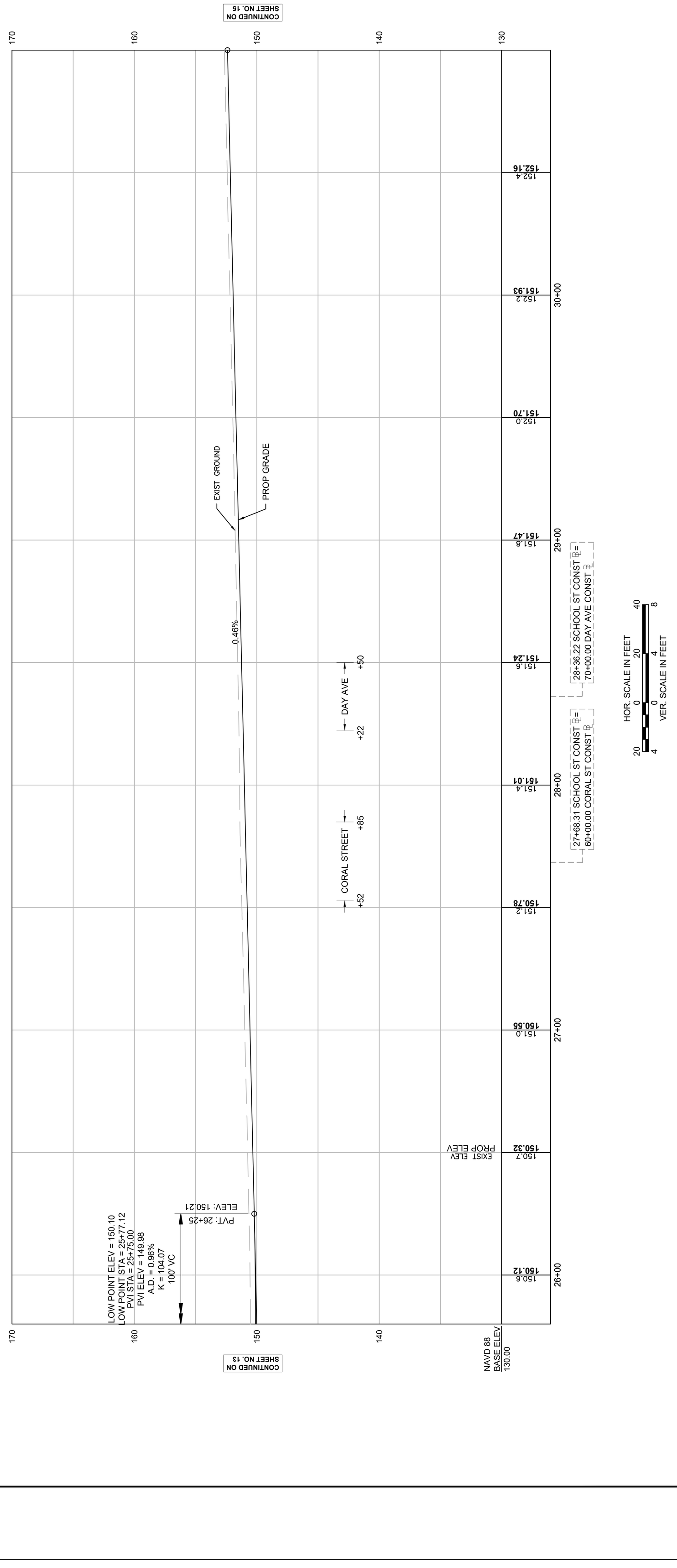
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MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	14	71
PROJECT FILE NO. 609255			

PROFILES

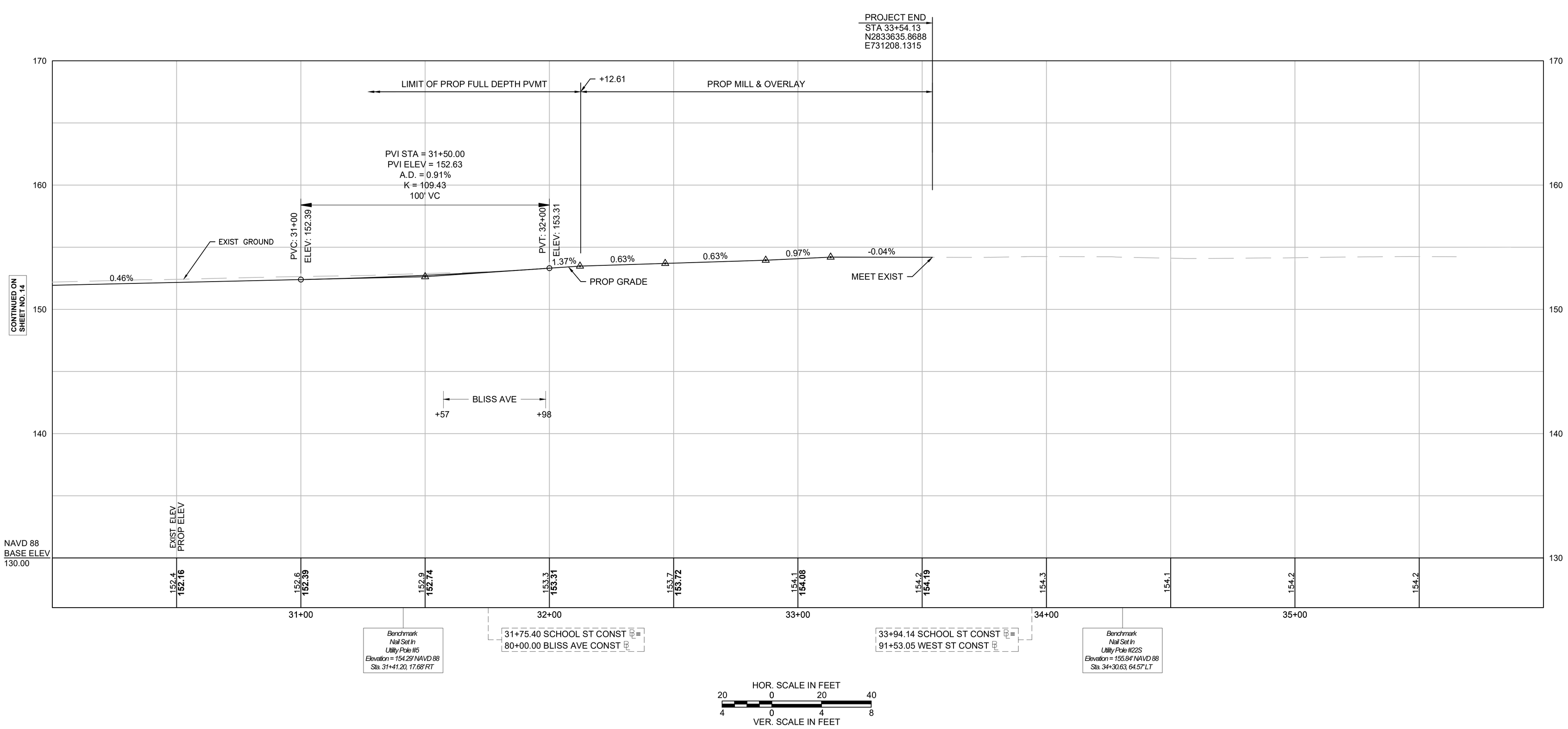
FOR CONSTRUCTION PLAN:
SEE SHEET NO. 9



MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	15	71
PROJECT FILE NO. 609255			

PROFILES



FOR CONSTRUCTION PLAN:
SEE SHEET NO. 10

609255_HD(PRF).DWG Plotted on 6-Nov-2023 10:07 PM

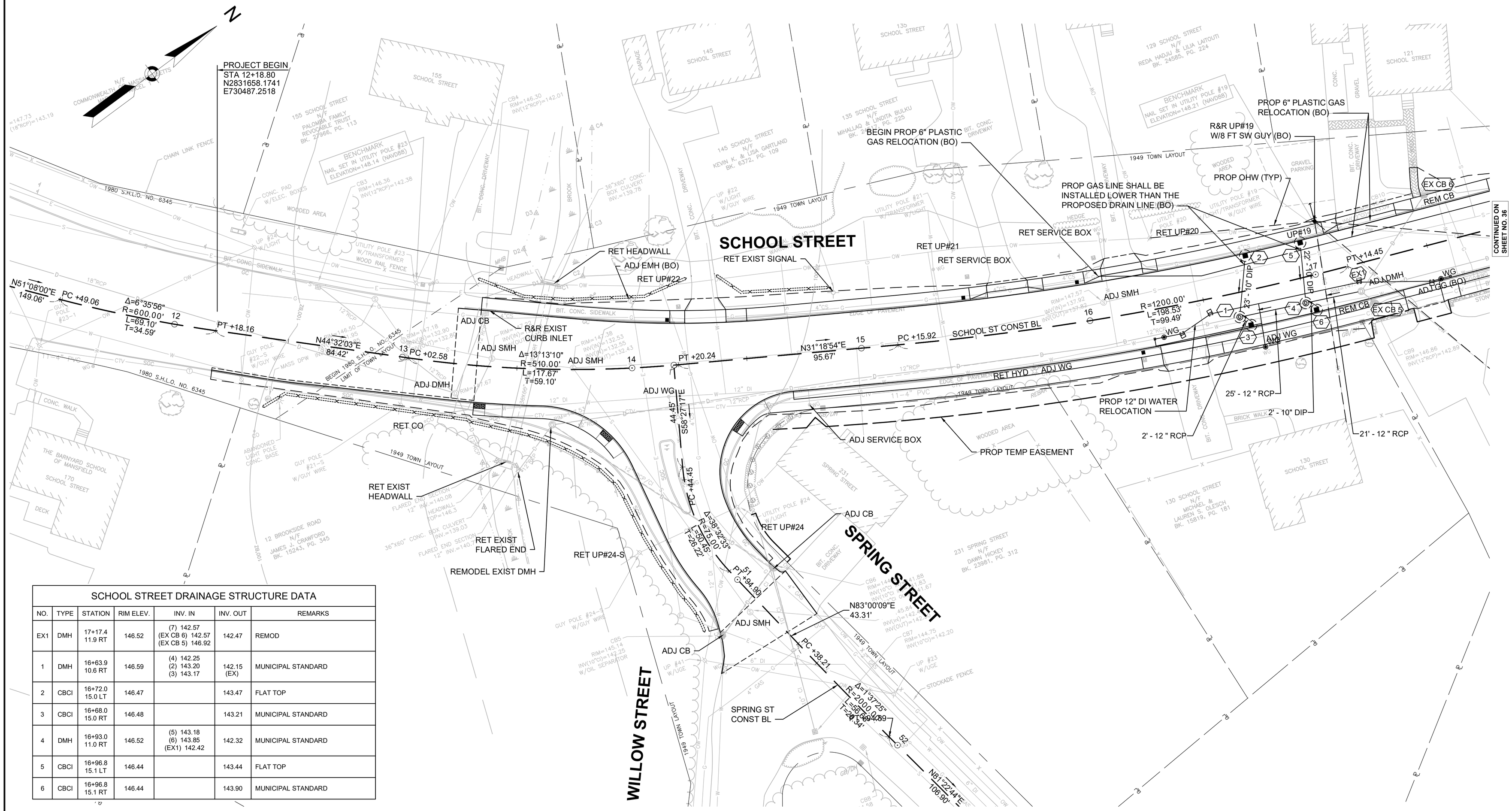
Proposal No. 609255-130934

A0080S0-37

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	35	71
PROJECT FILE NO. 609255			

UTILITY PLANS



SCHOOL STREET DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
EX1	DMH	17+17.4 11.9 RT	146.52	(7) 142.57 (EX CB 6) 142.57 (EX CB 5) 146.92	142.47	REMOD
1	DMH	16+63.9 10.6 RT	146.59	(4) 142.25 (2) 143.20 (3) 143.17	142.15 (EX)	MUNICIPAL STANDARD
2	CBCI	16+72.0 15.0 LT	146.47		143.47	FLAT TOP
3	CBCI	16+68.0 15.0 RT	146.48		143.21	MUNICIPAL STANDARD
4	DMH	16+93.0 11.0 RT	146.52	(5) 143.18 (6) 143.85 (EX1) 142.42	142.32	MUNICIPAL STANDARD
5	CBCI	16+96.8 15.1 LT	146.44		143.44	FLAT TOP
6	CBCI	16+96.8 15.1 RT	146.44		143.90	MUNICIPAL STANDARD

609255_HDUTIL).DWG Plotted on 6-Nov-2023 10:17 PM

Proposal No. 609255-130934

A00850-38

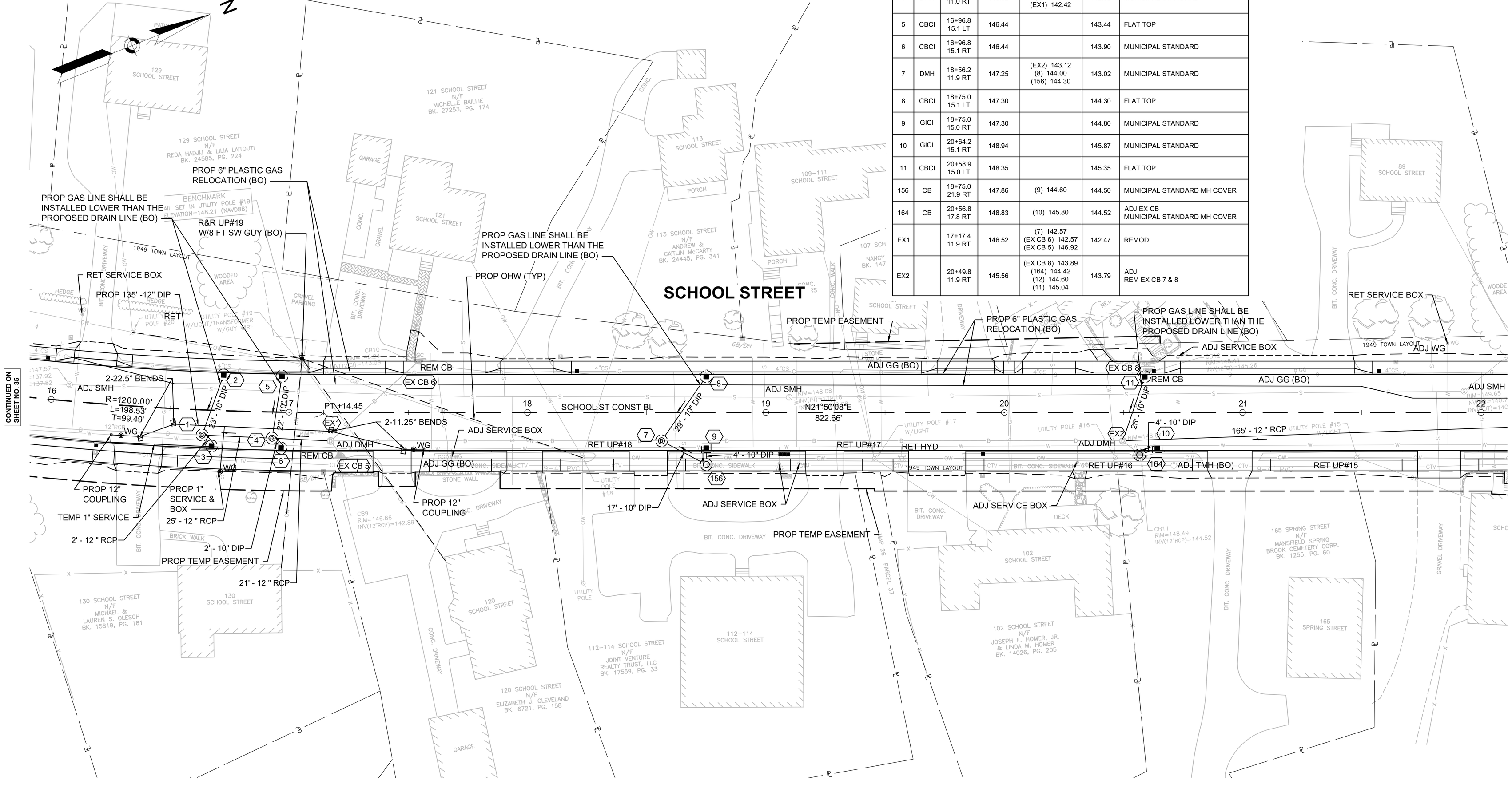
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	36	71
PROJECT FILE NO. 609255			

UTILITY PLANS

SCHOOL STREET DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
1	DMH	16+63.9 10.6 RT	146.59	(4) 142.25 (2) 143.20 (3) 143.17	142.15	MUNICIPAL STANDARD
2	CBCI	16+72.0 15.0 LT	146.47		143.47	FLAT TOP
3	CBCI	16+68.0 15.0 RT	146.48		143.21	MUNICIPAL STANDARD
4	DMH	16+93.0 11.0 RT	146.52	(5) 143.18 (6) 143.85 (EX1) 142.42	142.32	MUNICIPAL STANDARD
5	CBCI	16+96.8 15.1 LT	146.44		143.44	FLAT TOP
6	CBCI	16+96.8 15.1 RT	146.44		143.90	MUNICIPAL STANDARD
7	DMH	18+56.2 11.9 RT	147.25	(EX2) 143.12 (8) 144.00 (156) 144.30	143.02	MUNICIPAL STANDARD
8	CBCI	18+75.0 15.1 LT	147.30		144.30	FLAT TOP
9	GICI	18+75.0 15.0 RT	147.30		144.80	MUNICIPAL STANDARD
10	GICI	20+64.2 15.1 RT	148.94		145.87	MUNICIPAL STANDARD
11	CBCI	20+58.9 15.0 LT	148.35		145.35	FLAT TOP
156	CB	18+75.0 21.9 RT	147.86	(9) 144.60	144.50	MUNICIPAL STANDARD MH COVER
164	CB	20+56.8 17.8 RT	148.83	(10) 145.80	144.52	ADJ EX CB MUNICIPAL STANDARD MH COVER
EX1		17+17.4 11.9 RT	146.52	(7) 142.57 (EX CB 6) 142.57 (EX CB 5) 146.92	142.47	REMOD
EX2		20+49.8 11.9 RT	145.56	(EX CB 8) 143.89 (164) 144.42 (12) 144.60 (11) 145.04	143.79	ADJ REM EX CB 7 & 8



609255_HD(UTIL).DWG Plotted on 6-Nov-2023 10:17 PM

Proposal No. 609255-130934

A00850-39

609255_HD(UTIL).DWG Plotted on 6-Nov-2023 10:17 PM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	37	71
PROJECT FILE NO. 609255			

UTILITY PLANS

SCHOOL STREET DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
EX3	DMH	25+71.1 9.4 RT	149.92	(161) 146.75 (15) 146.65 (16) 146.70	146.60	ADJ REM EX CB 9 & 10
12	DMH	22+17.9 6.0 RT	149.43	(13) 146.17 (140) 146.17	146.07	MUNICIPAL STANDARD
13	CBCI	22+30.0 15.0 LT	149.32		146.31	FLAT TOP
14	GICI	22+30.0 15.0 RT	149.32		146.80	
15	CB	25+77.0 15.0 LT	149.80		146.80	FLAT TOP
16	CB	25+77.1 15.6 RT	149.79		146.93	ECC
140	CB	22+30.0 22.1 RT	149.88	(14) 146.70	146.37	MUNICIPAL STANDARD MH COVER
142	CB	26+02.8 15.0 LT	149.83		147.30	FLAT TOP
143	CB	26+00.0 15.6 RT	149.81		147.30	ECC

CONTINUED ON SHEET NO. 38

CONTINUED ON SHEET NO. 36

SCALE: 1" = 20'

MANSFIELD
SCHOOL STREET

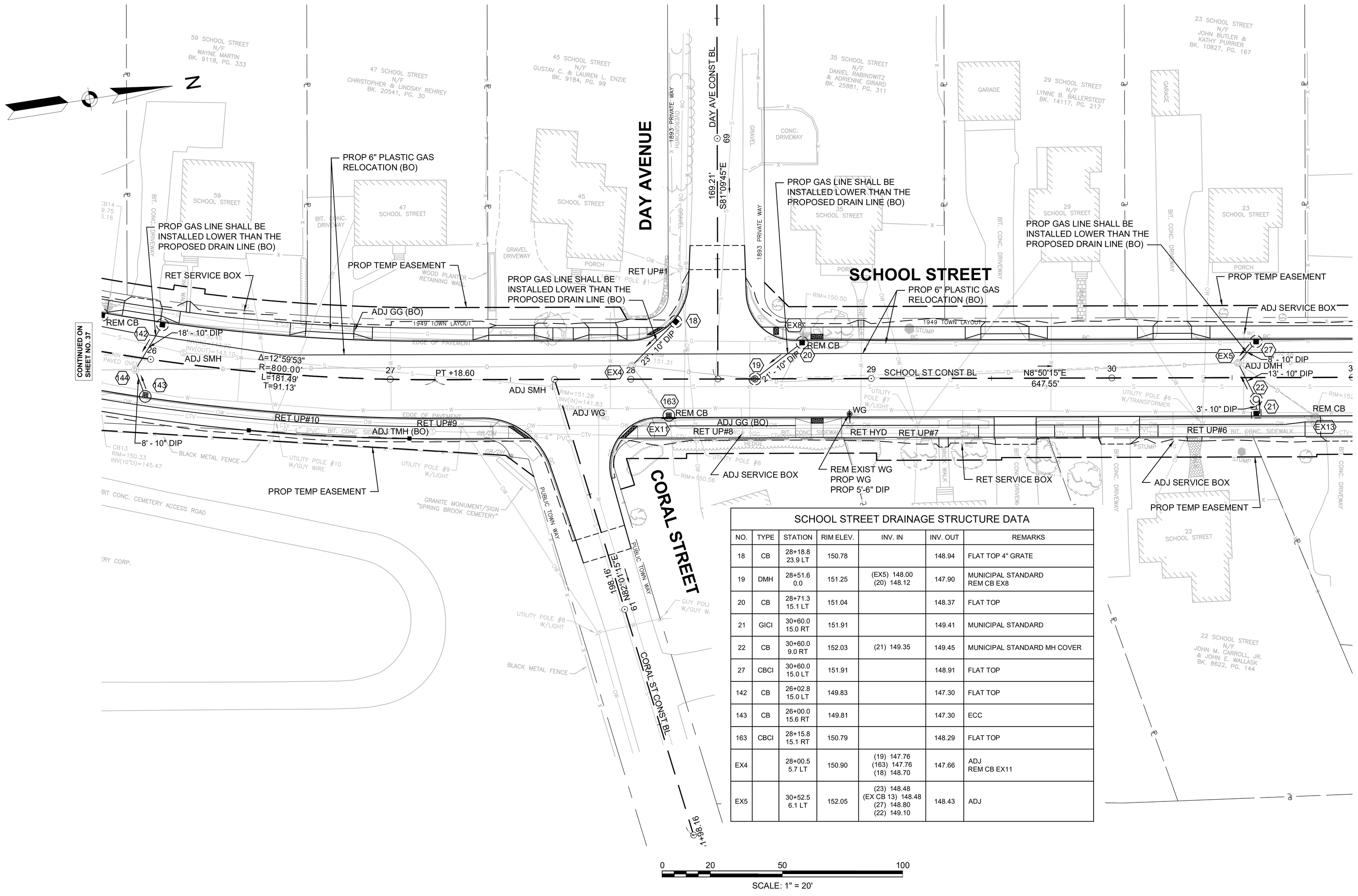
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	38	71
PROJECT FILE NO. 609255			

UTILITY PLANS

609255_HDUTIL).DWG Plotted on 6-Nov-2023 10:18 PM

Proposal No. 609255-130934

A00850-41



SCHOOL STREET DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
18	CB	28+18.8 23.9 LT	150.78		148.94	FLAT TOP 4" GRATE
19	DMH	28+51.6 0.0	151.25	(EX5) 148.00 (20) 148.12	147.90	MUNICIPAL STANDARD REM CB EX8
20	CB	28+71.3 15.1 LT	151.04		148.37	FLAT TOP
21	GICI	30+60.0 15.0 RT	151.91		149.41	MUNICIPAL STANDARD
22	CB	30+60.0 9.0 RT	152.03	(21) 149.35	149.45	MUNICIPAL STANDARD MH COVER
27	CBCI	30+60.0 15.0 LT	151.91		148.91	FLAT TOP
142	CB	26+02.8 15.0 LT	149.83		147.30	FLAT TOP
143	CB	26+00.0 15.6 RT	149.81		147.30	ECC
163	CBCI	28+15.8 15.1 RT	150.79		148.29	FLAT TOP
EX4		28+00.5 5.7 LT	150.90	(19) 147.76 (163) 147.76 (18) 148.70	147.66	ADJ REM CB EX11
EX5		30+52.5 6.1 LT	152.05	(23) 148.48 (EX CB 13) 148.48 (27) 148.80 (22) 149.10	148.43	ADJ

0 20 50 100

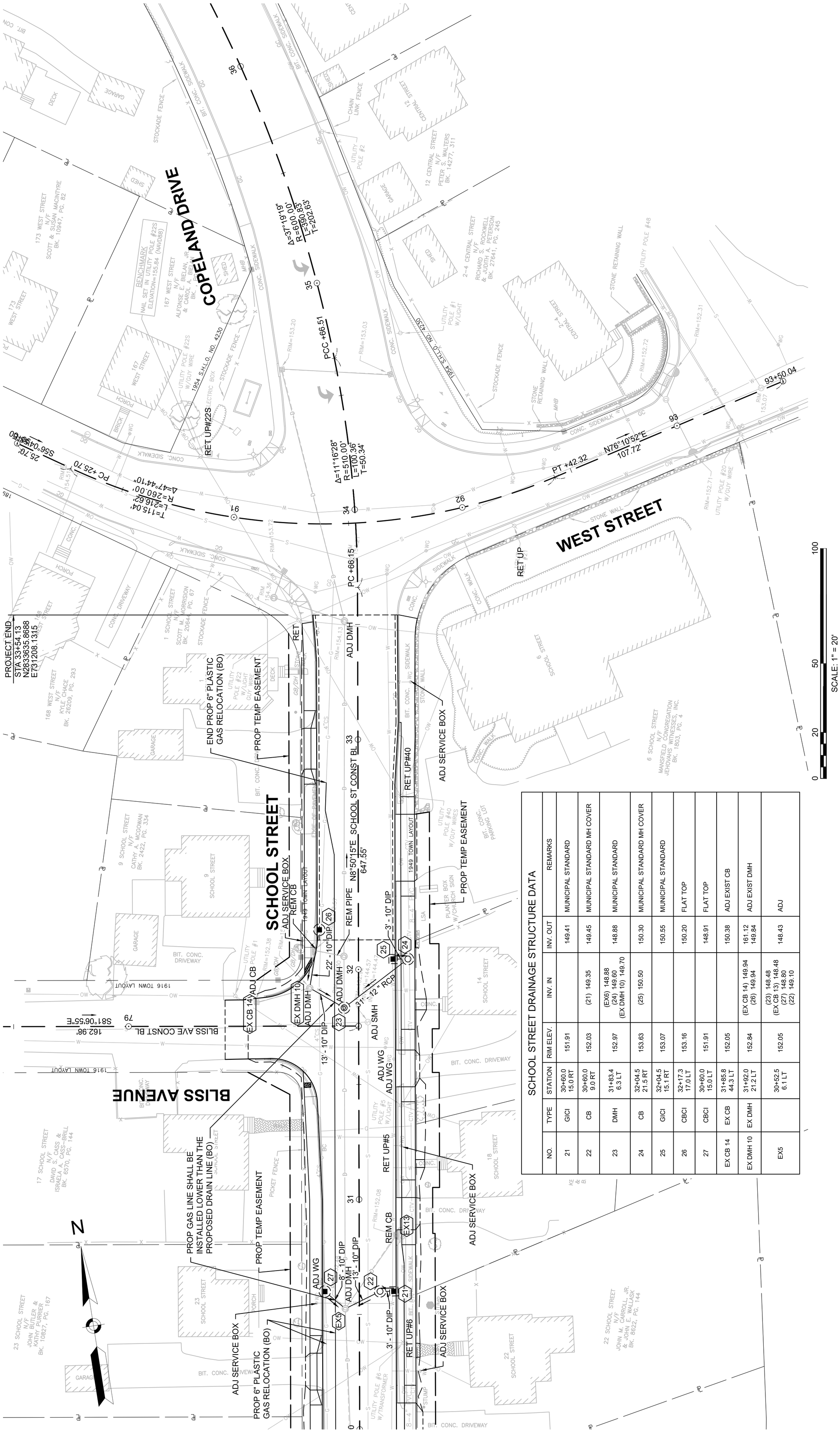
SCALE: 1" = 20'

609255_HD(UTIL).DWG Plotted on 6-Nov-2023 10:18 PM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	39	71
PROJECT FILE NO. 609255			

UTILITY PLANS



SCHOOL STREET DRAINAGE STRUCTURE DATA

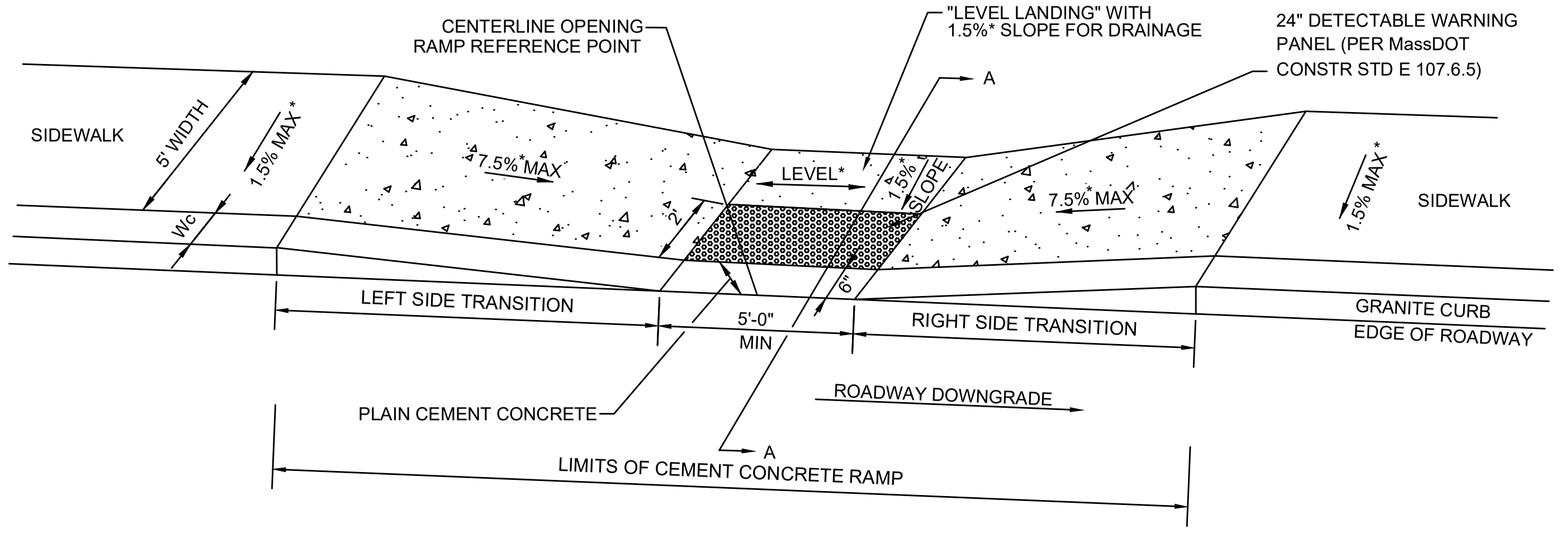
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
21	GICI	30+60.0 15.0 RT	151.91		149.41	MUNICIPAL STANDARD
22	CB	30+60.0 9.0 RT	152.03	(21) 149.35	149.45	MUNICIPAL STANDARD MH COVER
23	DMH	31+83.4 6.3 LT	152.97	(EX6) 148.88 (24) 149.60 (EX DMH 10) 149.70	148.88	MUNICIPAL STANDARD
24	CB	32+04.5 21.5 RT	153.63	(25) 150.50	150.30	MUNICIPAL STANDARD MH COVER
25	GICI	32+04.5 15.1 RT	153.07		150.55	MUNICIPAL STANDARD
26	CBCI	32+17.3 17.0 LT	153.16		150.20	FLAT TOP
27	CBCI	30+60.0 15.0 LT	151.91		148.91	FLAT TOP
EX CB 14	EX CB	31+85.8 44.3 LT	152.05		150.38	ADJ EXIST CB
EX DMH 10	EX DMH	31+92.0 21.2 LT	152.84	(EX CB 14) 149.94 (26) 149.94	161.12 149.84	ADJ EXIST DMH
EX5		30+52.5 6.1 LT	152.05	(23) 148.48 (EX CB 13) 148.48 (27) 148.80 (22) 149.10	148.43	ADJ

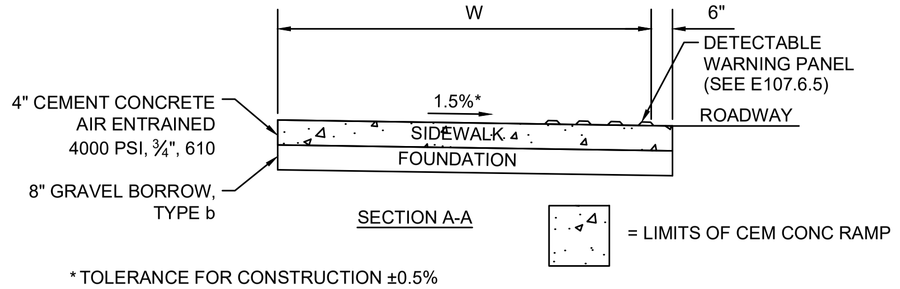
CONTINUED ON SHEET NO. 38

609255_HD(DET).DWG Plotted on 6-Nov-2023 10:18 PM

Proposal No. 609255-130934

A00850-43





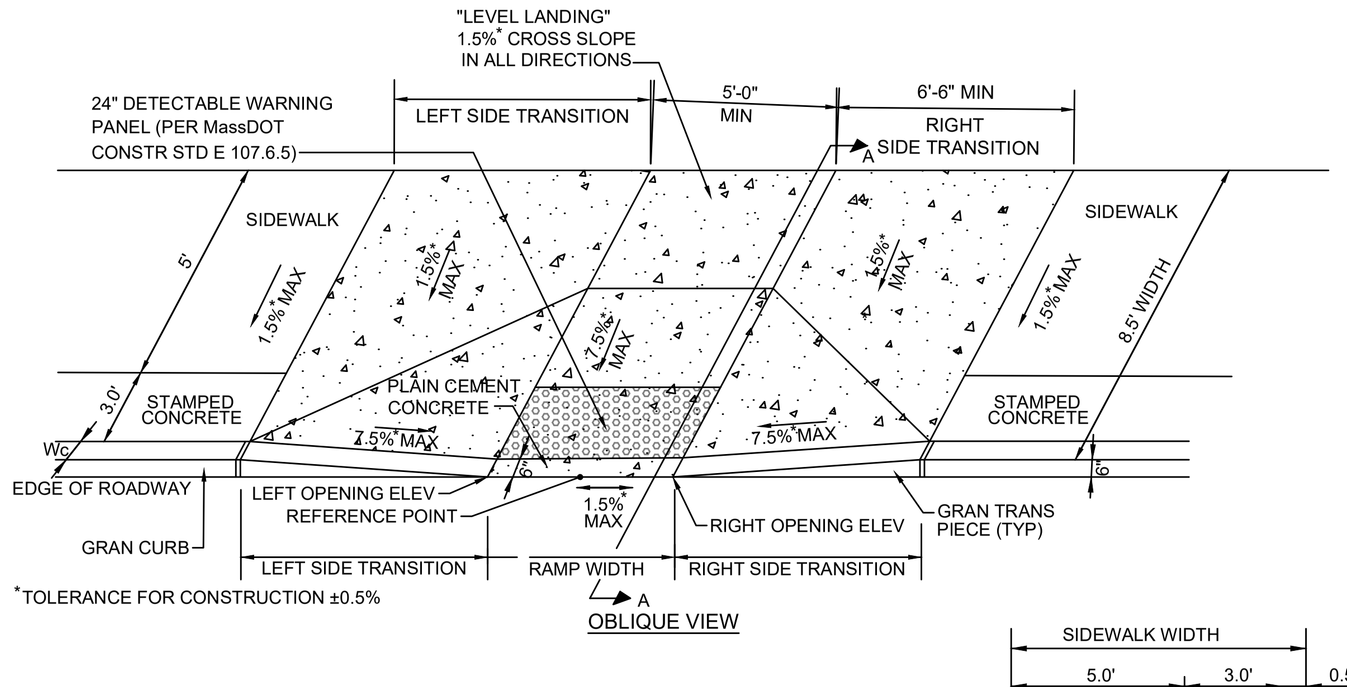
*TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMP ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL (E 107.2.1)

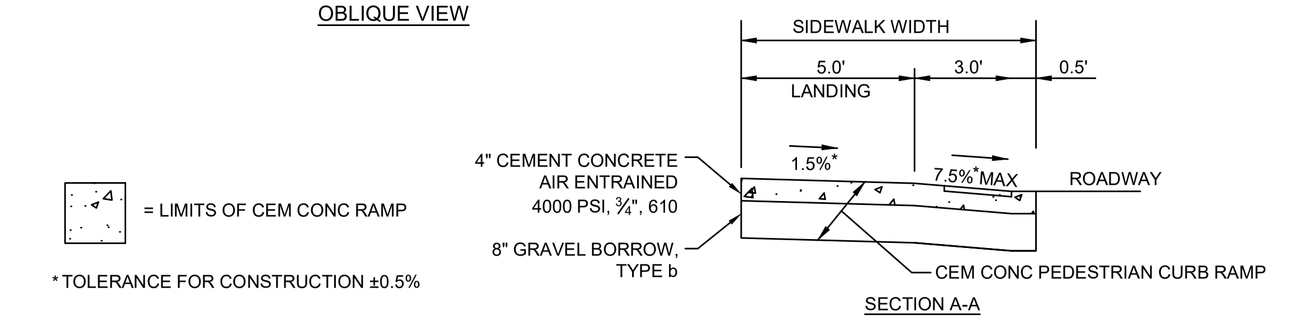
SCALE: N.T.S.

PEDESTRIAN CURB RAMP DATA										
NO.	LOCATION (REF. POINT)	SIDEWALK WIDTH	RAMP OPENING	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		℄ OPENING ELEVATION	COMMENTS
					REVEAL	TRANS	REVEAL	TRANS		
2	13+89 28.0' RT	5.5'	5.7'	-1.30%	6"	6'-6"	6"	9'-0"	146.96	
12	28+77 19.6' LT	5.5'	5.0'	0.46%	6"	3'-3"	6"	7'-8"	150.72	3" REVEAL LT SIDE

NOTE:
1. ROADWAY GUTTER SLOPES ARE IN THE DIRECTION OF THE SCHOOL STREET BASELINE.
2. TOLERANCE FOR CONSTRUCTION ±0.5%.



*TOLERANCE FOR CONSTRUCTION ±0.5%



= LIMITS OF CEM CONC RAMP

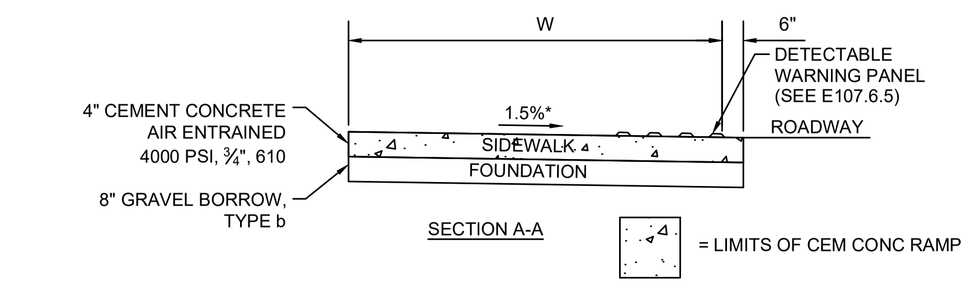
*TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMPS LESS THAN 12'-4" SIDEWALK (E 107.2.0)

SCALE: N.T.S.

PEDESTRIAN CURB RAMP DATA												
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	RAMP LENGTH	LEFT SIDE				RIGHT SIDE			
					ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV	ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV
8	28+77 16.0' RT	8'-0"	5'-0"	6'-0"	0.46%	6"	7'-8"	150.96	0.46%	6"	6'-6"	150.96

NOTE:
1. ROADWAY GUTTER SLOPES ARE IN THE DIRECTION OF THE BASELINE.
2. TOLERANCE FOR CONSTRUCTION ±0.5%.



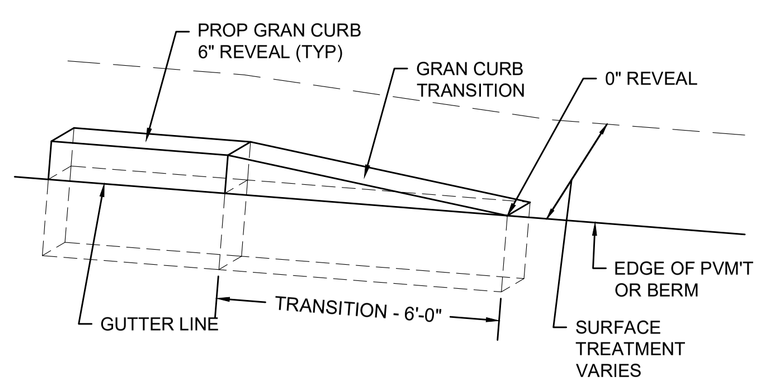
*TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMP ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL - LEFT TRANSITION ONLY

SCALE: N.T.S.

PEDESTRIAN CURB RAMP DATA										
NO.	LOCATION (REF. POINT)	SIDEWALK WIDTH	RAMP OPENING	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		℄ OPENING ELEVATION	COMMENTS
					REVEAL	TRANS	REVEAL	TRANS		
1	13+35 16.0' RT	5.5'	5.0'	0.60%	6"	7'-8"	6"	6'-6"	147.63	
3	50+28 24.5' LT	5.5'	5.9'	2.60%	6"	11'-0"	6"	6'-6"	147.10	

NOTE:
1. ROADWAY GUTTER SLOPES ARE IN THE DIRECTION OF THE BASELINE.
2. TOLERANCE FOR CONSTRUCTION ±0.5%.



GRANITE CURB TRANSITION PIECE

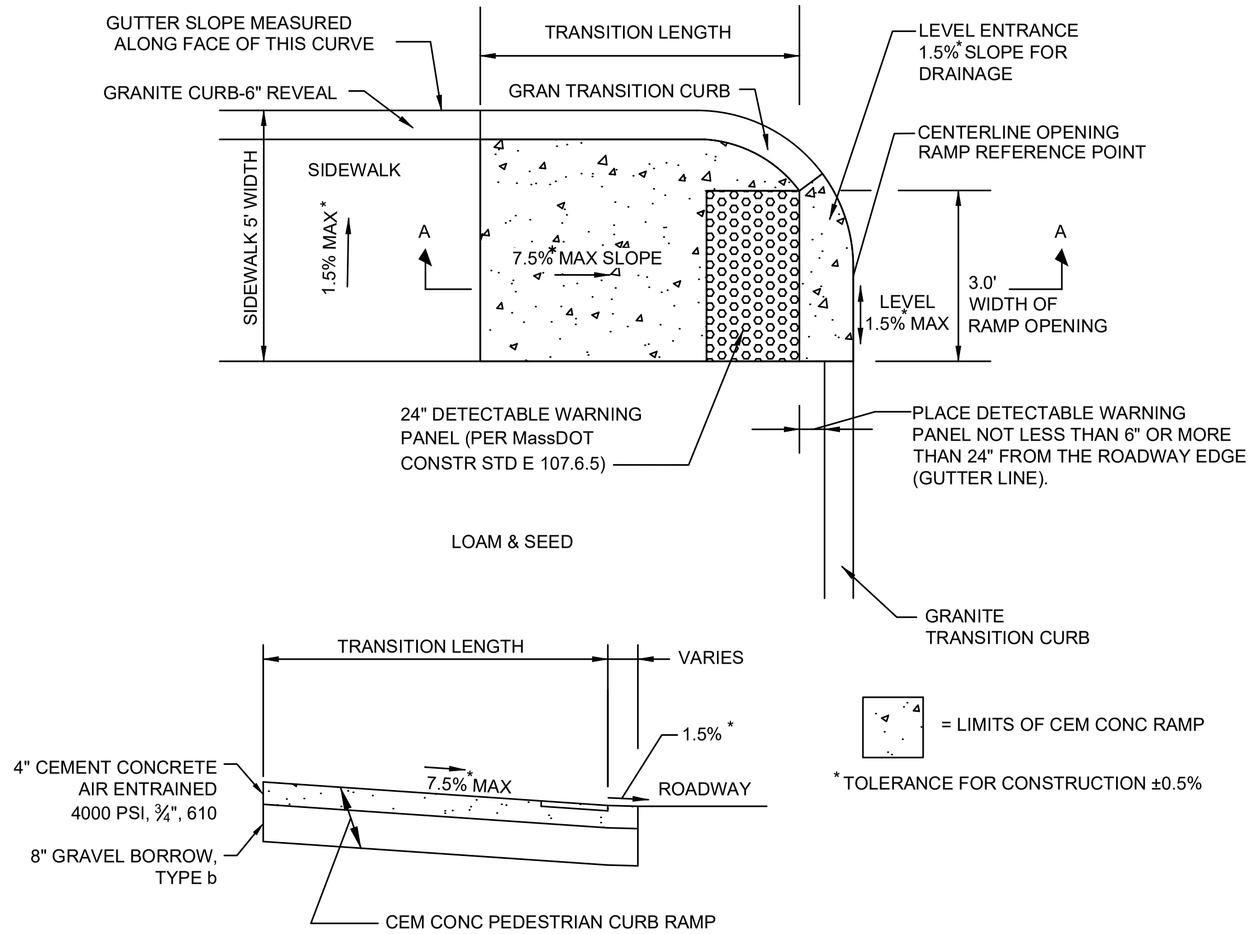
SCALE: N.T.S.

609255_HD(DET).DWG Plotted on 6-Nov-2023 10:18 PM

Proposal No. 609255-130934

PEDESTRIAN CURB RAMP DATA									
NO.	LOCATION (REF. POINT)	SIDEWALK WIDTH	RAMP OPENING	ROADWAY GUTTER	LEFT SIDE REVEAL	LEFT SIDE TRANS	RIGHT SIDE REVEAL	RIGHT SIDE TRANS	℄ OPENING ELEVATION
7	28+57 19.6' LT	5.5'	6.9'	0.46%	6"	6'-6"	6"	7'-8"	151.06
10	31+54 22.2' LT	5.5'	3.5'	0.79%	6"	6'-6"	6"	6'-6"	152.37

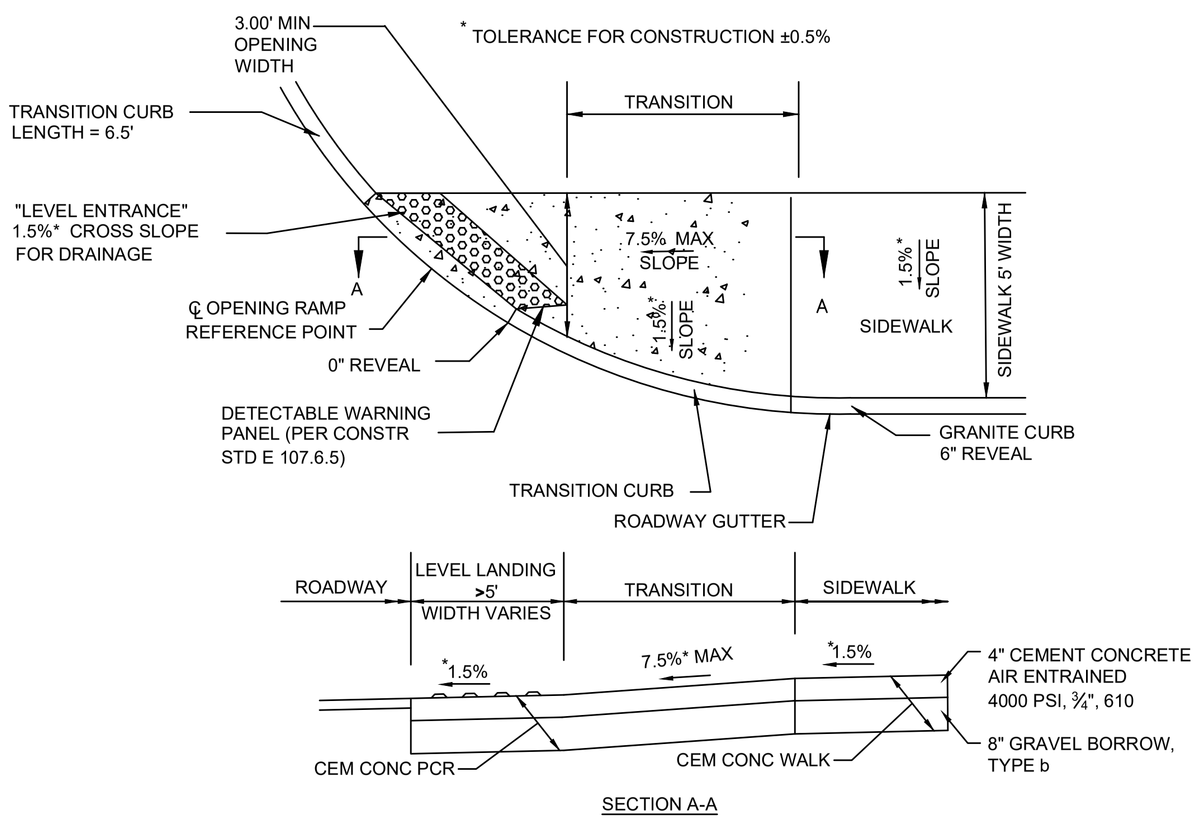
NOTE:
1. ROADWAY GUTTER SLOPES ARE IN THE DIRECTION OF THE BASELINE.
2. TOLERANCE FOR CONSTRUCTION ±0.5%.



SECTION A-A

PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL (E 107.6.0)

SCALE: N.T.S.



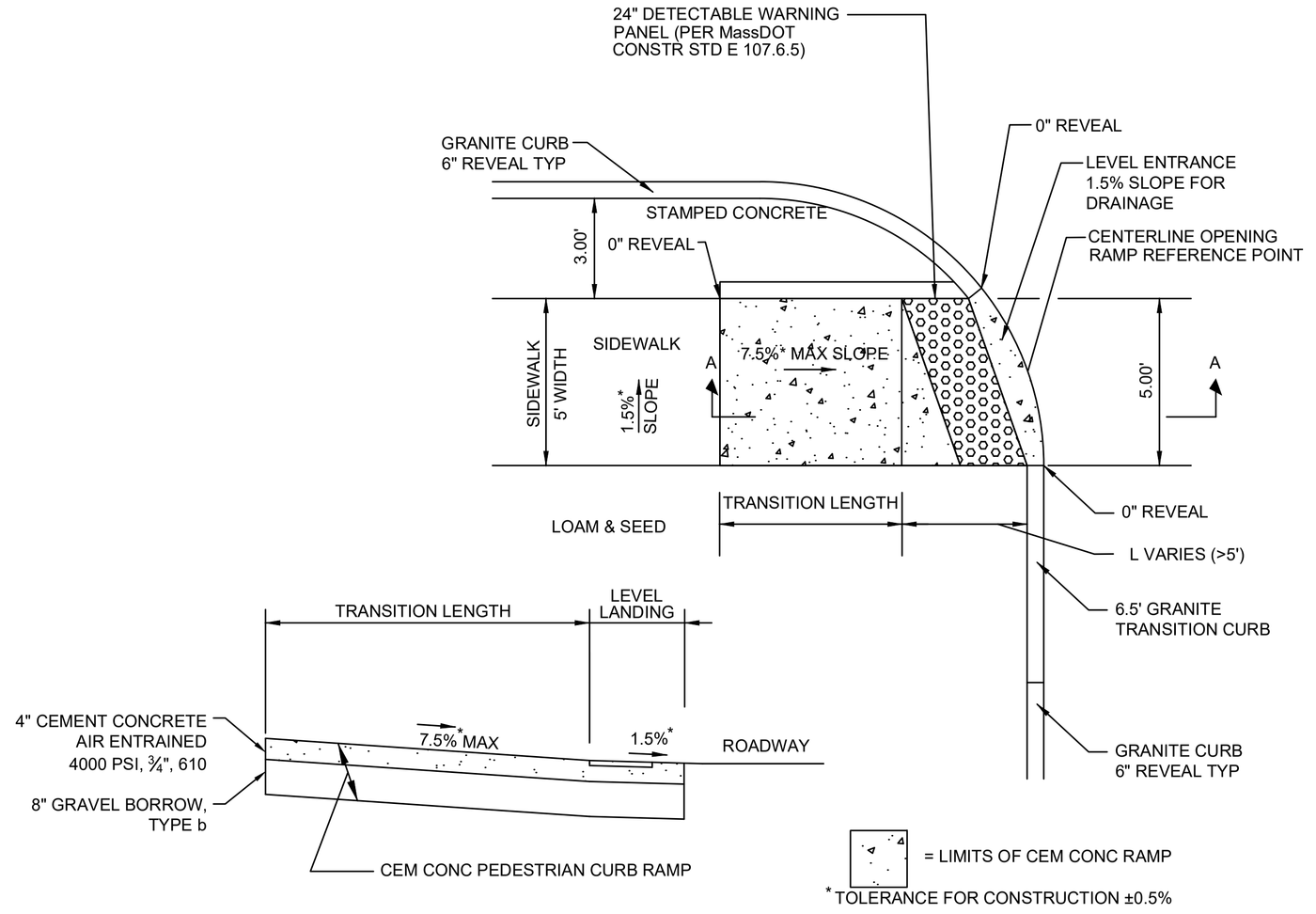
SECTION A-A

* TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL (E 107.6.0)

SCALE: N.T.S.

PEDESTRIAN CURB RAMP DATA										
NO.	LOCATION (REF. POINT)	SIDEWALK WIDTH	RAMP OPENING	ROADWAY GUTTER	LEFT SIDE REVEAL	LEFT SIDE TRANS	RIGHT SIDE REVEAL	RIGHT SIDE TRANS	℄ OPENING ELEVATION	COMMENTS
6	28+12 19.6' LT	5.5'	3.5'	0.46%	3"	3'-3"	6"	6'-6"	150.75	3" REVEAL RT SIDE
11	32+00 21.5' LT	5.5'	3.5'	1.37%	6"	6'-6"	6"	9'-0"	152.88	



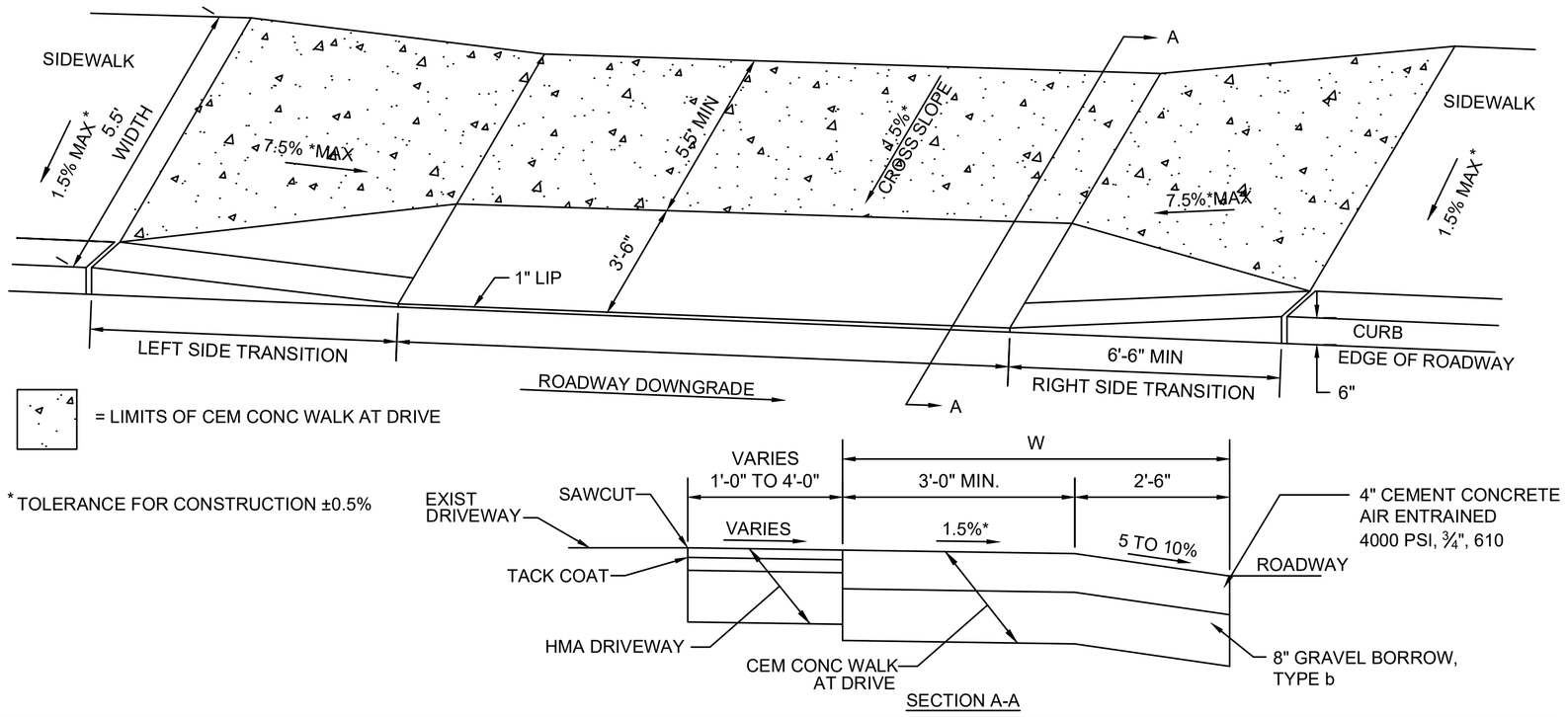
SECTION A-A

PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN

SCALE: N.T.S.

PEDESTRIAN CURB RAMP DATA										
NO.	LOCATION (REF. POINT)	SIDEWALK WIDTH	RAMP OPENING	ROADWAY GUTTER	LEFT SIDE REVEAL	LEFT SIDE TRANS	RIGHT SIDE REVEAL	RIGHT SIDE TRANS	℄ OPENING ELEVATION	COMMENTS
4	27+55 21.5' RT	5.0'	5'	0.46%	6"	6'-6"	6"	6'-6"	150.35	
5	27+97 21.5' RT	5.0'	5'	0.46%	6"	9'-0"	6"	6'-6"	150.59	

NOTE:
1. ROADWAY GUTTER SLOPES ARE IN THE DIRECTION OF THE BASELINE.
2. TOLERANCE FOR CONSTRUCTION ±0.5%.



SIDEWALK THROUGH DRIVEWAYS WITHOUT CURB RETURNS (E 107.7.0)

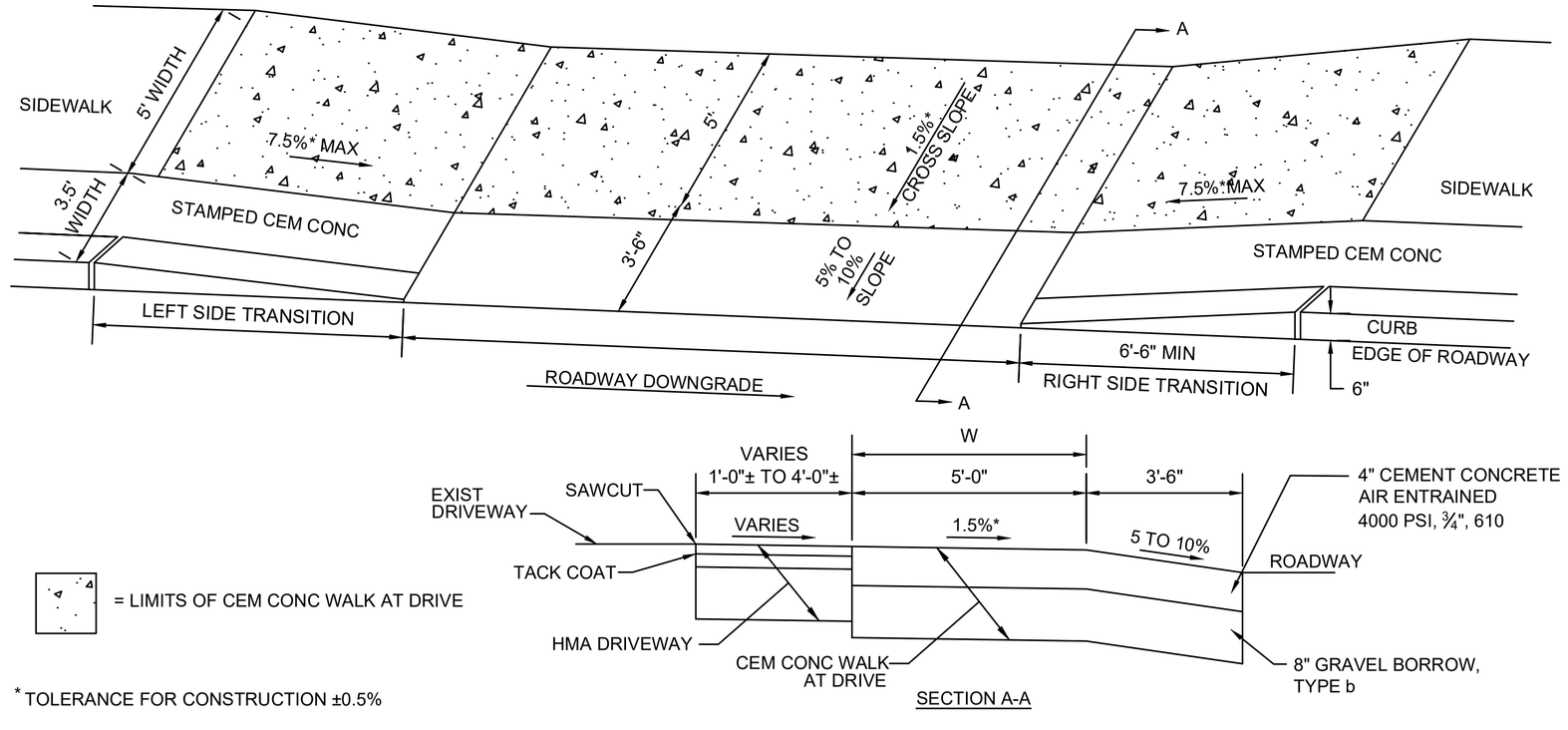
SCALE: N.T.S.

DRIVEWAY RAMP DATA									
NUMBER	STATION & OFFSET	SIDEWALK WIDTH	LEFT SIDE		RIGHT SIDE		DRIVEWAY OPENING WIDTH	DRIVEWAY APRON SLOPE	COMMENTS
			ROADWAY GUTTER	TRANSITION LENGTH	ROADWAY GUTTER	TRANSITION LENGTH			
2	15+66 16.00' LT	5.5'	-0.5%	7'-8"	-0.50%	6'-6"	18.0'	5.0%	
3	16+17 16.00' LT	5.5'	-0.5%	7'-8"	-0.50%	6'-6"	18.0'	5.0%	
5	17+27 16.00' LT	5.5'-7.5'	0.15%	6'-6"	0.51%	7'-8"	26.0'	5.0%	
8	18+00 16.00' LT	5.5'	0.57%	6'-6"	0.57%	7'-8"	22.0'	8.0%	
12	19+84 16.00' LT	5.5'	0.57%	6'-6"	0.57%	3'-10"	24.0'	5.0%	3" REVEAL ON RT
13	20+24 16.00' LT	5.5'	0.57%	3'-3"	0.57%	7'-8"	22.4'	8.0%	3" REVEAL ON LT
14	21+10 16.00' LT	5.5'	0.57%	6'-6"	0.57%	7'-8"	73.0'	5.0%	
16	24+37 16.00' LT	5.5'	0.11%	6'-6"	-0.30%	6'-6"	32.0'	5.0%	
18	25+94 16.00' LT	5.5'	0.05%	6'-6"	0.29%	7'-8"	16.1'	5.0%	
19	26+74 16.00' LT	5.5'	0.46%	6'-6"	0.46%	7'-8"	20.1'	5.0%	
20	27+52 16.00' LT	5.5'	0.46%	6'-6"	0.46%	7'-8"	19.0'	5.0%	
21	27+88 16.00' LT	5.5'	0.46%	6'-6"	0.46%	3'-10"	12.0'	5.0%	3" REVEAL ON RT
22	29+56 16.00' LT	5.5'	0.46%	6'-6"	0.46%	7'-8"	20.0'	5.0%	
25	30+25 16.00' LT	5.5'	0.46%	6'-6"	0.46%	7'-8"	16.0'	5.0%	
29	32+96 17.92' LT	5.5'	0.67%	6'-6"	0.27%	7'-8"	24.2'	8.0%	
31	22+76 16.00' LT	5.5'	0.57%	6'-6"	0.57%	7'-8"	24.0'	10.0%	

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	42	71
PROJECT FILE NO. 609255			

CONSTRUCTION DETAILS

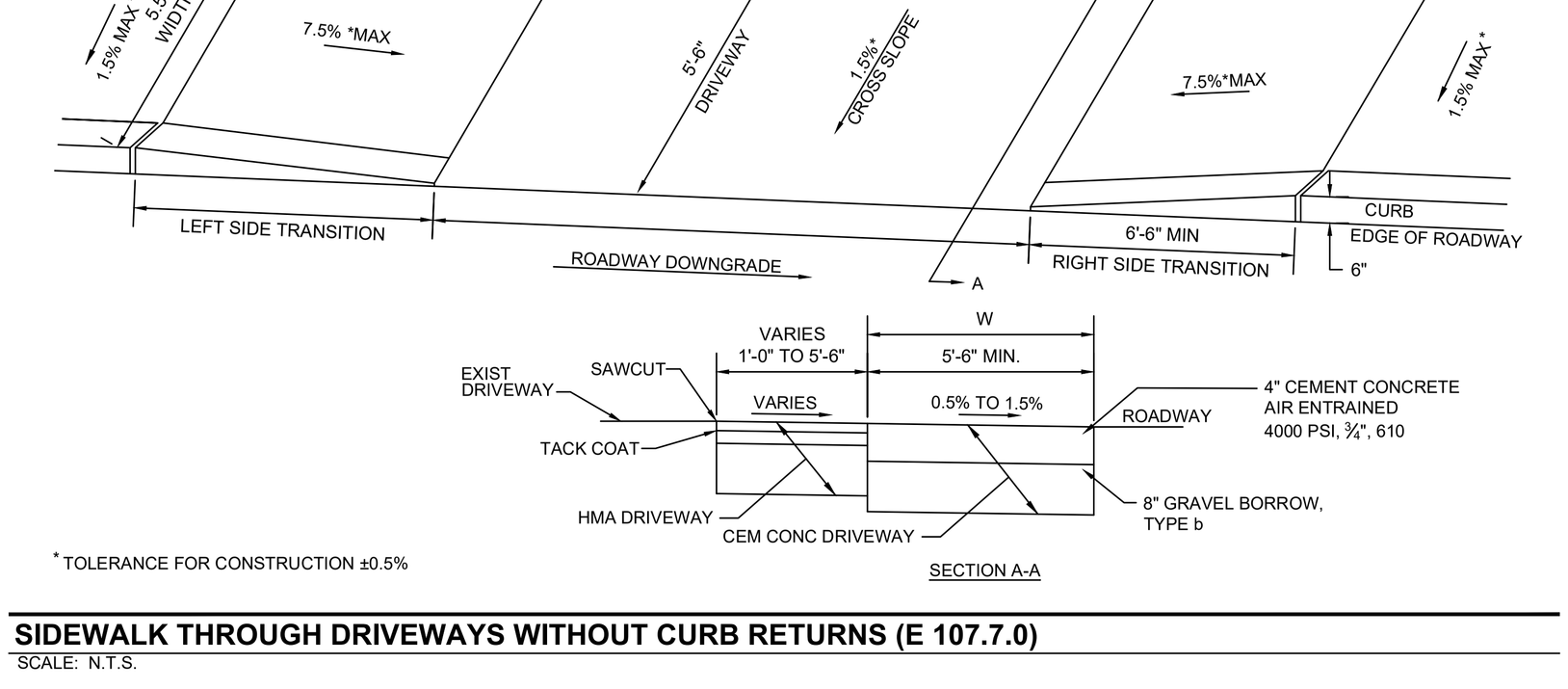


SIDEWALK THROUGH DRIVEWAYS WITHOUT CURB RETURNS - NO FLARE

SCALE: N.T.S.

DRIVEWAY RAMP DATA									
NUMBER	STATION & OFFSET	SIDEWALK WIDTH	LEFT SIDE		RIGHT SIDE		DRIVEWAY OPENING WIDTH	DRIVEWAY APRON SLOPE	COMMENTS
			ROADWAY GUTTER	TRANSITION LENGTH	ROADWAY GUTTER	TRANSITION LENGTH			
4	16+38 16.00' RT	5.0'	-0.5%	6'-6"	-0.50%	9'-0"	20.0'	10.0%	
6	17+43 16.00' RT	5.0'	0.57%	7'-8"	0.42%	6'-6"	16.0'	9.5%	
7	17+99 16.00' RT	5.0'	0.57%	7'-8"	0.57%	6'-6"	14.8'	8.5%	
9	18+51 16.00' RT	5.0'	0.57%	7'-8"	0.57%	6'-6"	16.0'	5.0%	
10	19+25 16.00' RT	5.0'	0.57%	7'-8"	0.57%	6'-6"	16.0'	5.0%	
11	19+72 16.00' RT	5.0'	0.57%	7'-8"	0.57%	6'-6"	24.0'	5.0%	
15	21+82 16.00' RT	5.0'	0.57%	7'-8"	0.57%	6'-6"	18.0'	10.0%	
23	29+60 16.00' RT	5.0'	0.46%	7'-8"	0.46%	6'-6"	18.0'	5.0%	
24	30+01 16.00' RT	5.0'	0.46%	7'-8"	0.46%	6'-6"	17.0'	5.0%	
26	30+94 16.00' RT	6.0'	0.57%	7'-8"	0.46%	6'-6"	14.0'	5.0%	
27	31+57 16.00' RT	6.0'	1.09%	7'-8"	0.88%	6'-6"	16.0'	5.0%	
28	32+53 16.00' RT	6.0'	0.63%	7'-8"	0.63%	6'-6"	29.1'	5.0%	
30	20+95 16.00' RT	5.0'	0.57%	7'-8"	0.57%	6'-6"	18.0'	5.0%	

609255_HD(DET).DWG Plotted on 6-Nov-2023 10:18 PM
Proposal No. 609255-130934
A00850-45



* TOLERANCE FOR CONSTRUCTION ±0.5%

SIDEWALK THROUGH DRIVEWAYS WITHOUT CURB RETURNS (E 107.7.0)

SCALE: N.T.S.

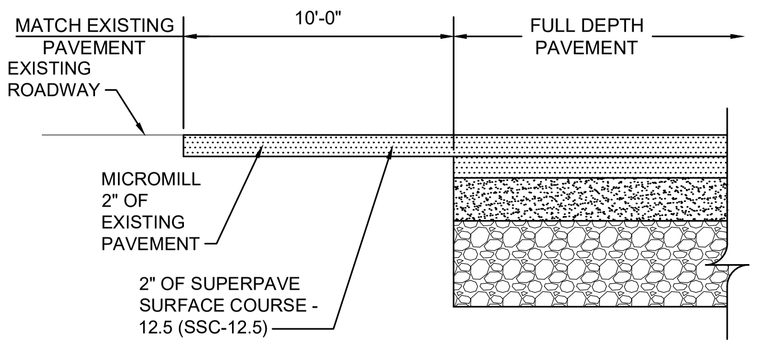
			DRIVEWAY RAMP DATA						
			LEFT SIDE		RIGHT SIDE				
NUMBER	STATION & OFFSET	SIDEWALK WIDTH	ROADWAY GUTTER	TRANSITION LENGTH	ROADWAY GUTTER	TRANSITION LENGTH	DRIVEWAY OPENING WIDTH	DRIVEWAY APRON SLOPE	COMMENTS
◇1	14+34 17.02' LT	5.5'	0.33%	6'-6"	0.06%	7'-8"	18.0'	1.5%	
◇17	25+18 16.00' LT	5.5'	-0.50%	7'-8"	-0.42%	6'-6"	16.0'	0.5%	

609255_HD(DET).DWG Plotted on 6-Nov-2023 10:18 PM
Proposal No. 609255-130934
A00850-46

609255_HD(DET).DWG Plotted on 6-Nov-2023 10:18 PM

Proposal No. 609255-130934

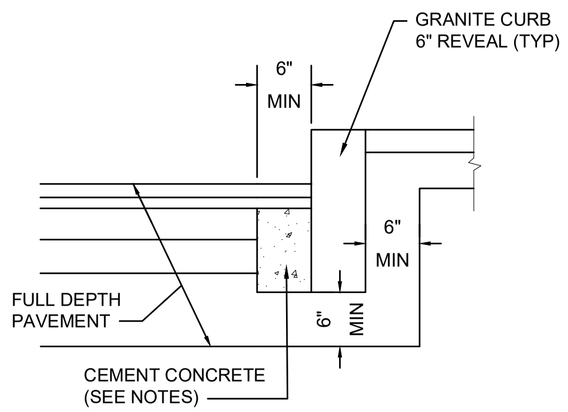
A00850-47



LONGITUDINAL SECTION

FULL DEPTH PAVEMENT TRANSITION

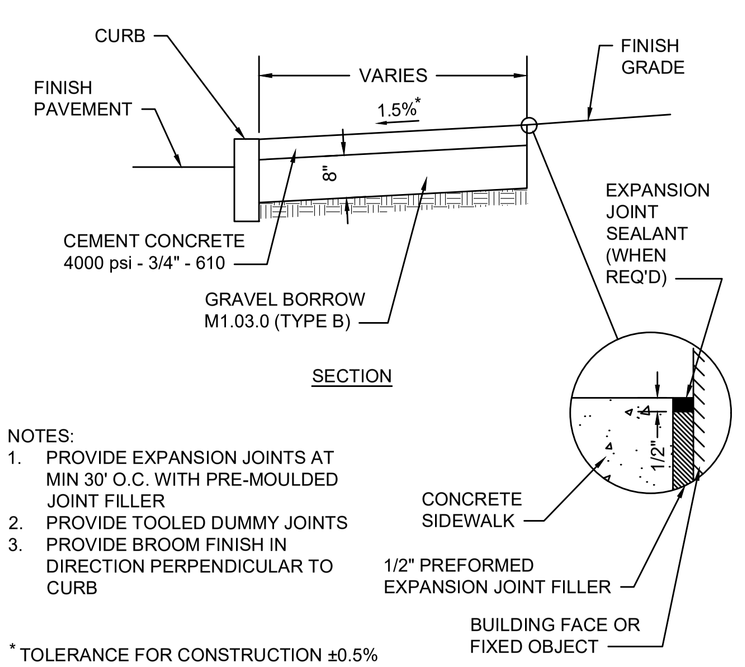
SCALE: N.T.S.



NOTES:
1. TO BE PLACED IF CURB IS INSTALLED AFTER HOT MIX ASPHALT
2. CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB
3. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

GRANITE CURB IN FULL DEPTH PAVEMENT

SCALE: N.T.S.



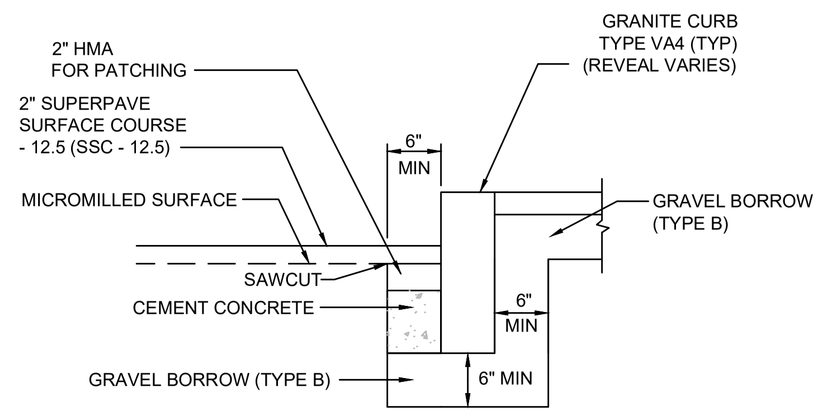
SECTION

NOTES:
1. PROVIDE EXPANSION JOINTS AT MIN 30' O.C. WITH PRE-MOULDED JOINT FILLER
2. PROVIDE TOOLED DUMMY JOINTS
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB

* TOLERANCE FOR CONSTRUCTION ±0.5%

CEMENT CONCRETE SIDEWALK

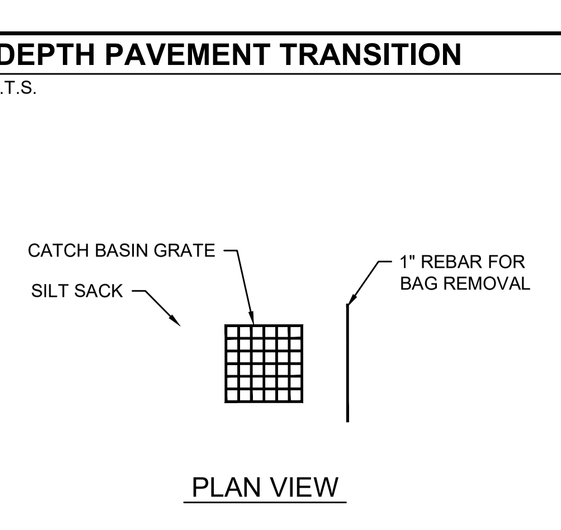
SCALE: N.T.S. DWG: WALK-01 DATE: MARCH 2013



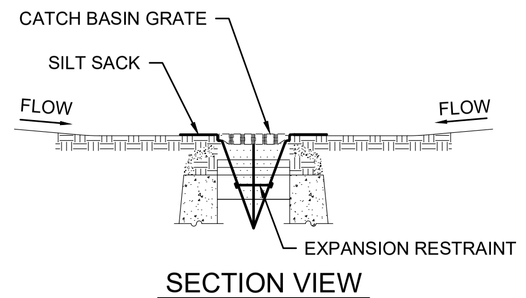
NOTES:
1. SAWCUT 6" FROM CURB LINE AND REMOVE EXISTING PAVEMENT AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
2. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

GRANITE CURB IN PAVEMENT MILL AND OVERLAY

SCALE: NTS



PLAN VIEW

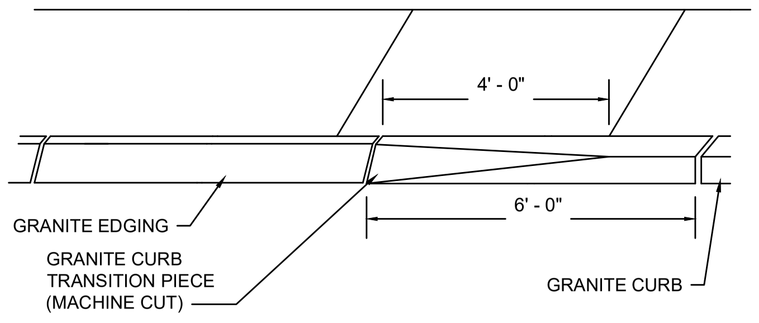


SECTION VIEW

NOTES:
1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

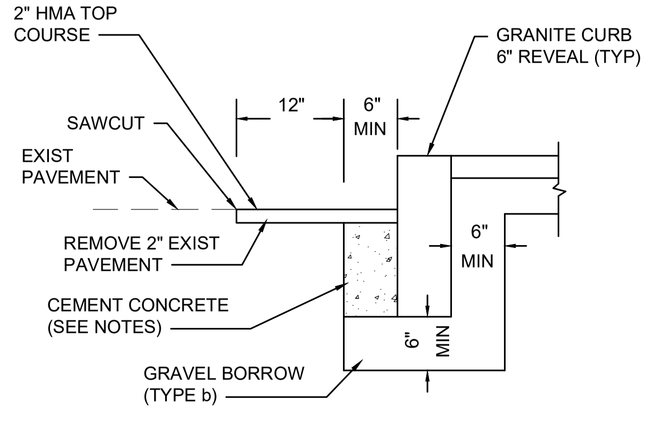
INLET PROTECTION - SILT SACK IN CATCH BASIN

SCALE: N.T.S.



GRANITE CURB SPLAYED END

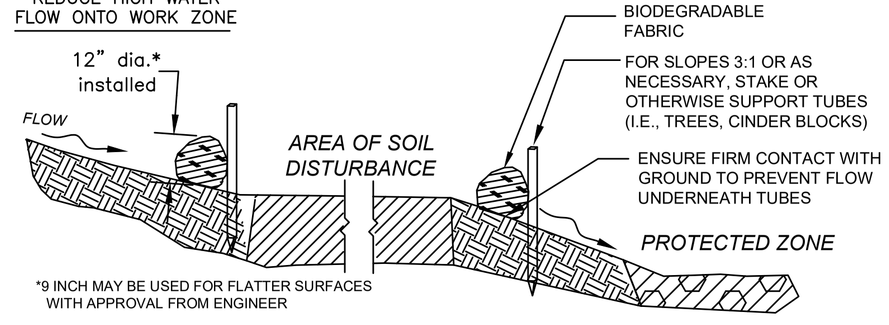
SCALE: N.T.S.



NOTES:
1. CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB.
2. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

GRANITE CURB IN EXISTING PAVEMENT

SCALE: N.T.S.

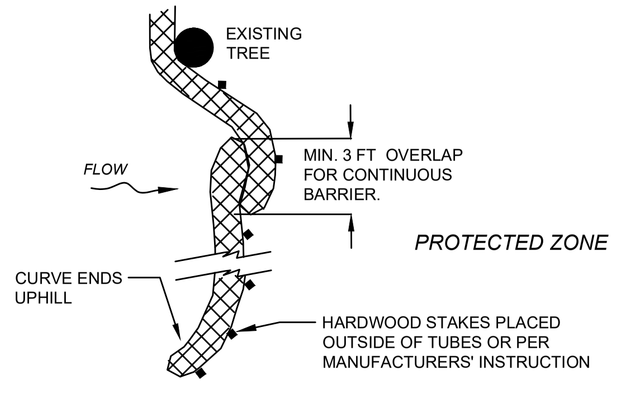


*9 INCH MAY BE USED FOR FLATTER SURFACES WITH APPROVAL FROM ENGINEER

SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE

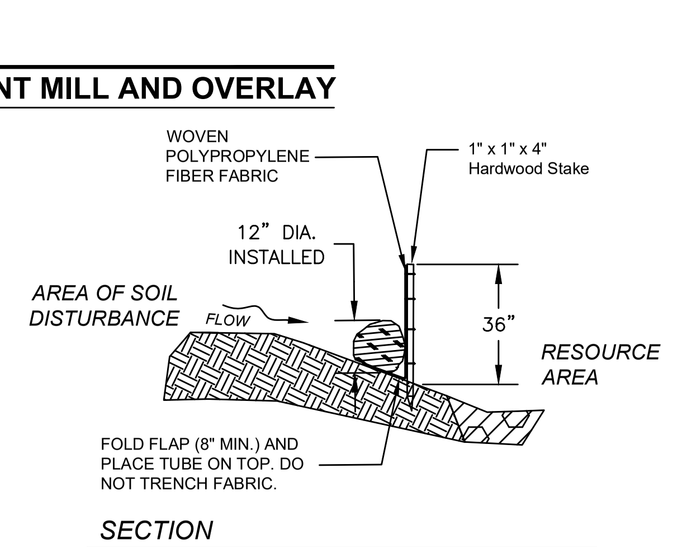
NOT TO SCALE



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.

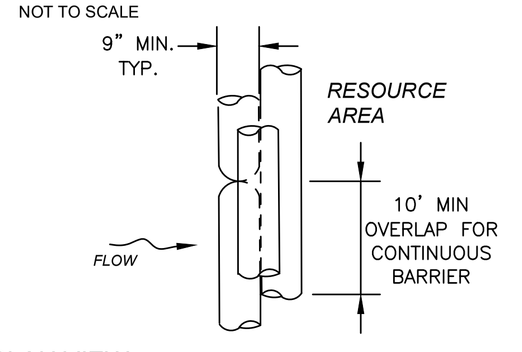
PLAN VIEW



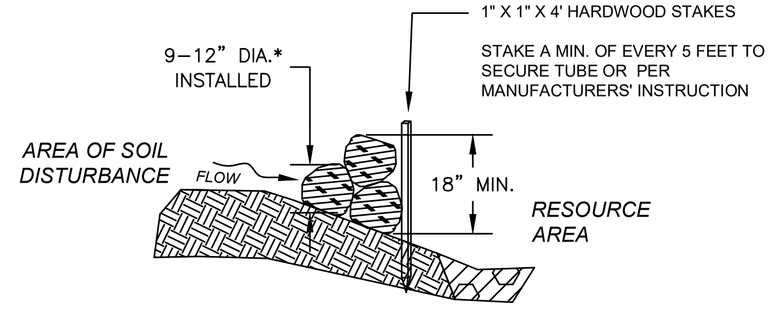
SECTION

COMPOST FILTER TUBE & SILT FENCE

NOT TO SCALE



PLAN VIEW



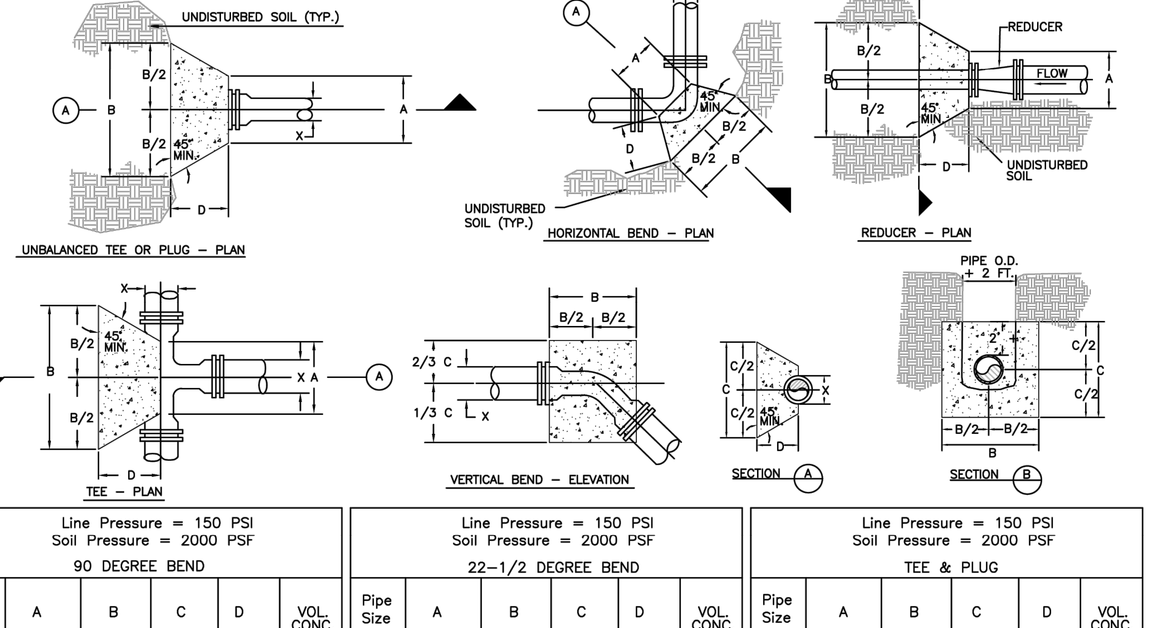
SECTION

COMPOST FILTER TUBE BERM (SLOPES 2:1 OR STEEPER)

NOT TO SCALE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	45	71
PROJECT FILE NO. 609255			

CONSTRUCTION DETAILS



Line Pressure = 150 PSI Soil Pressure = 2000 PSF 90 DEGREE BEND					
Pipe Size	A	B	C	D	VOL. CONC.
4"	0'–10"	1'–11"	1'–11"	1'–6"	4± CF
6"	0'–10"	1'–11"	1'–11"	1'–6"	4± CF
8"	0'–10"	2'–7"	2'–7"	1'–6"	7± CF
12"	0'–10"	3'–10"	3'–10"	1'–6"	14± CF

Line Pressure = 150 PSI Soil Pressure = 2000 PSF 22–1/2 DEGREE BEND					
Pipe Size	A	B	C	D	VOL. CONC.
4"	0'–10"	1'–0"	1'–0"	1'–0"	1± CF
6"	0'–10"	1'–0"	1'–0"	1'–0"	1± CF
8"	0'–10"	1'–4"	1'–4"	1'–0"	1.5± CF
12"	0'–10"	2'–0"	2'–0"	1'–0"	3± CF

Line Pressure = 150 PSI Soil Pressure = 2000 PSF TEE & PLUG					
Pipe Size	A	B	C	D	VOL. CONC.
4"	0'–10"	1'–8"	1'–8"	1'–3"	3± CF
6"	0'–10"	1'–8"	1'–8"	1'–3"	3± CF
8"	0'–10"	2'–2"	2'–2"	1'–3"	4± CF
12"	0'–10"	3'–3"	3'–3"	1'–3"	8± CF

45 DEGREE BEND					
4"	0'–10"	1'–6"	1'–6"	1'–0"	2± CF
6"	0'–10"	1'–6"	1'–6"	1'–0"	2± CF
8"	0'–10"	1'–11"	1'–11"	1'–0"	3± CF
12"	0'–10"	2'–10"	2'–10"	1'–0"	5± CF

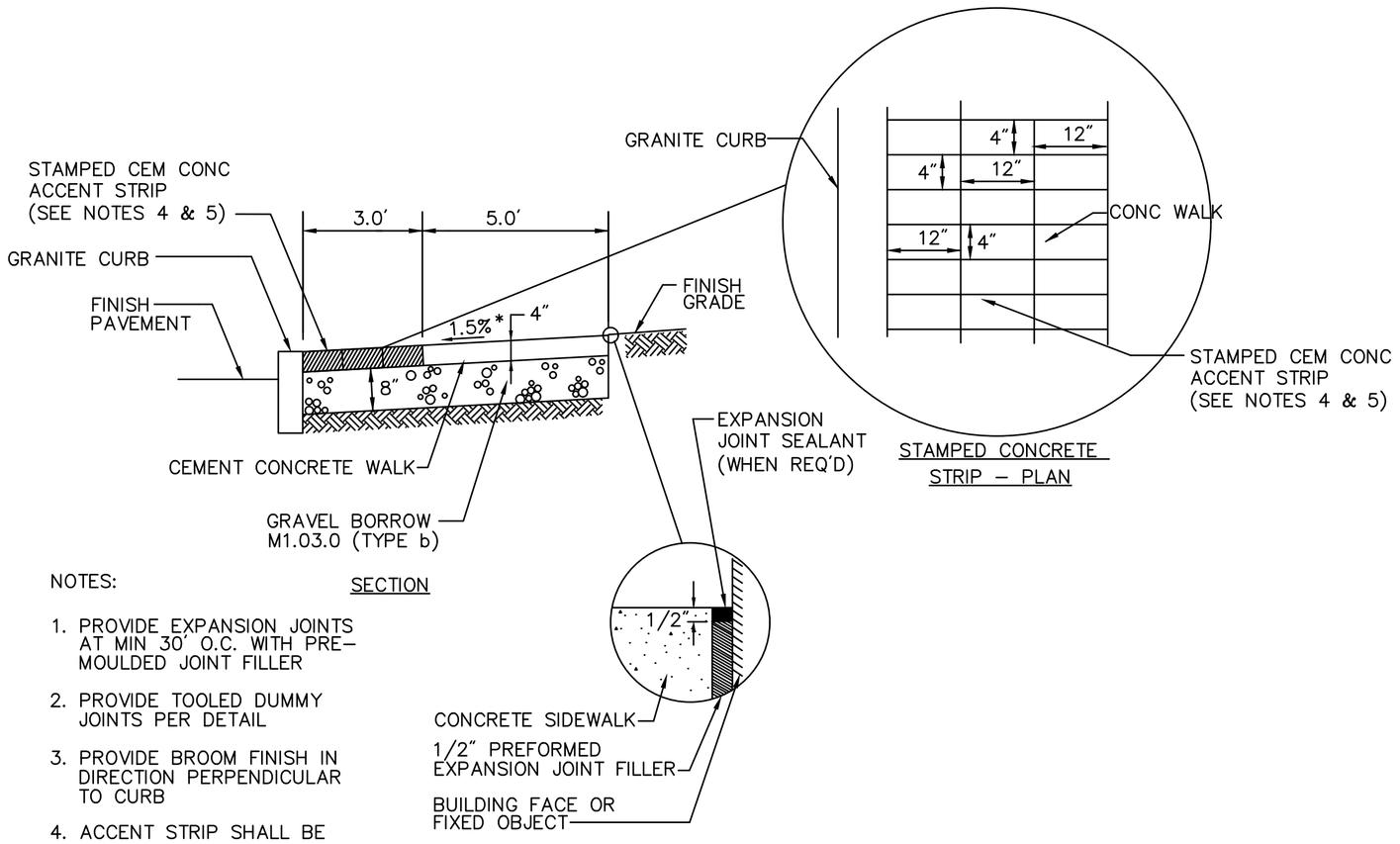
11–1/4 DEGREE BEND					
4"	0'–10"	0'–10"	0'–10"	1'–0"	0.7± CF
6"	0'–10"	0'–10"	0'–10"	1'–0"	0.7± CF
8"	0'–10"	1'–0"	1'–0"	1'–0"	1± CF
12"	0'–10"	1'–6"	1'–6"	1'–0"	2± CF

NOTES :

1. BLOCKING SHALL BE 3000 PSI CONCRETE.
2. 50lb FELT PAPER TO BE PLACED BETWEEN CONCRETE AND ALL PIPE SURFACES.
3. THE WATER LINE MUST BE LOWERED IN ORDER TO HAVE 4'–6" OF COVER AT THE BEND, TEE, REDUCER OR PLUG AT ALL LOCATIONS WHERE THESE FITTINGS ARE UTILIZED.

THRUST BLOCK

SCALE: NTS



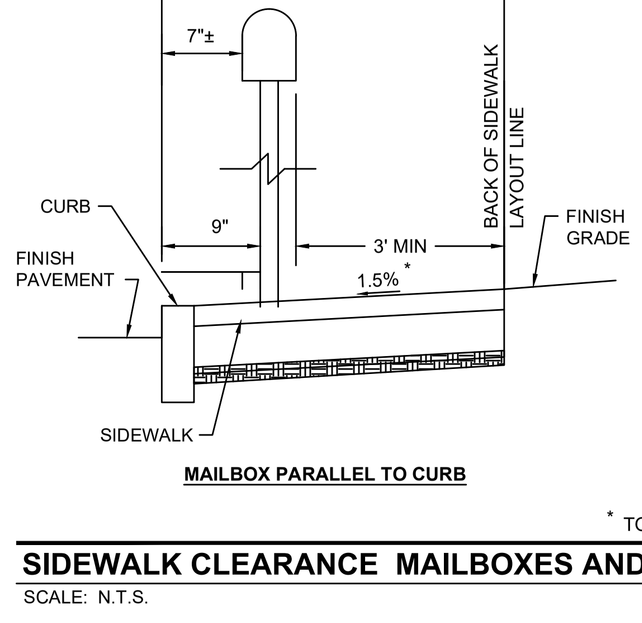
NOTES:

1. PROVIDE EXPANSION JOINTS AT MIN 30' O.C. WITH PRE–MOULDED JOINT FILLER
2. PROVIDE TOOLED DUMMY JOINTS PER DETAIL
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB
4. ACCENT STRIP SHALL BE CEM CONC COLORED THROUGHOUT STAMPED/IMPRINTED WITH A BRICK PATTERN.
5. ACCENT STRIP SHALL BE FORMED AGAINST GRANITE CURB/CURB INLET AND SHALL BE PLACED PRIOR TO CEM CONC WALK SURFACE OR SIDEWALK.

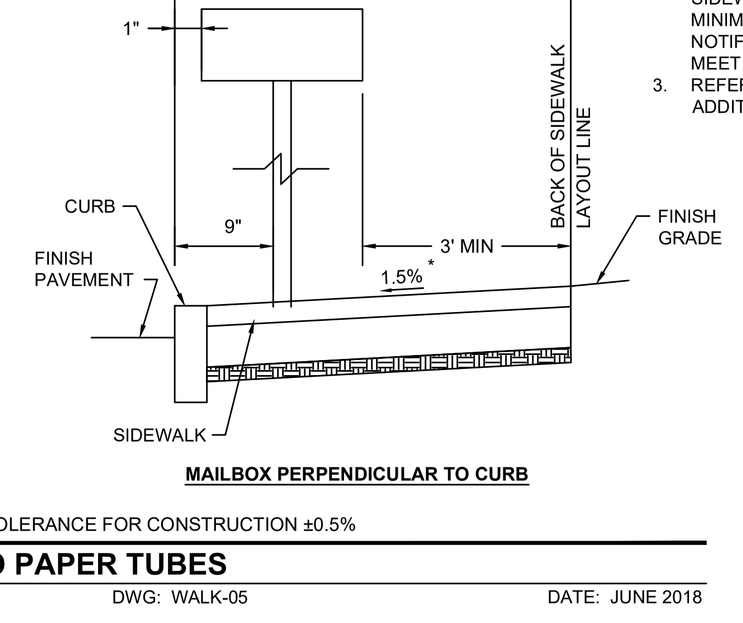
CEMENT CONCRETE SIDEWALK WITH STAMPED CONCRETE STRIP

SCALE: NOT TO SCALE
DATE: APRIL 2003
DWG: WALK–01

1. MINIMUM CLEAR PATH ON ALL SIDEWALK SHALL BE 36" EXCLUDING THE CURB. THE CLEAR PATH SHALL BE MEASURED TO FIRST VERTICAL FACE ENCOUNTERED ON THE MAILBOX OR PAPER TUBE (INCLUDING ALL PROTRUSIONS LESS THAN 6'-8" IN HEIGHT).
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL MAILBOXES AND PAPER TUBES TO BE SET WITHIN THE SIDEWALK PRIOR TO FINAL PLACEMENT TO PROVIDE A MINIMUM CLEAR PATH OF 36". CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY LOCATION THAT CANNOT MEET THE CLEARANCE REQUIREMENTS.
3. REFER TO MASSDOT STANDARD DETAIL E 504.1.0 FOR ADDITIONAL INFORMATION.



MAILBOX PARALLEL TO CURB



MAILBOX PERPENDICULAR TO CURB

* TOLERANCE FOR CONSTRUCTION ±0.5%

SIDEWALK CLEARANCE MAILBOXES AND PAPER TUBES

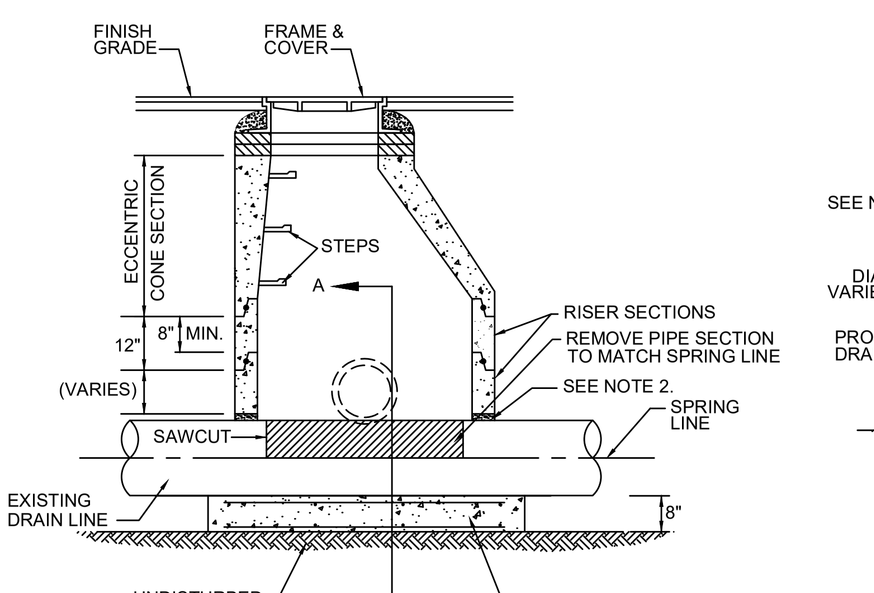
SCALE: N.T.S. DWG: WALK-05 DATE: JUNE 2018

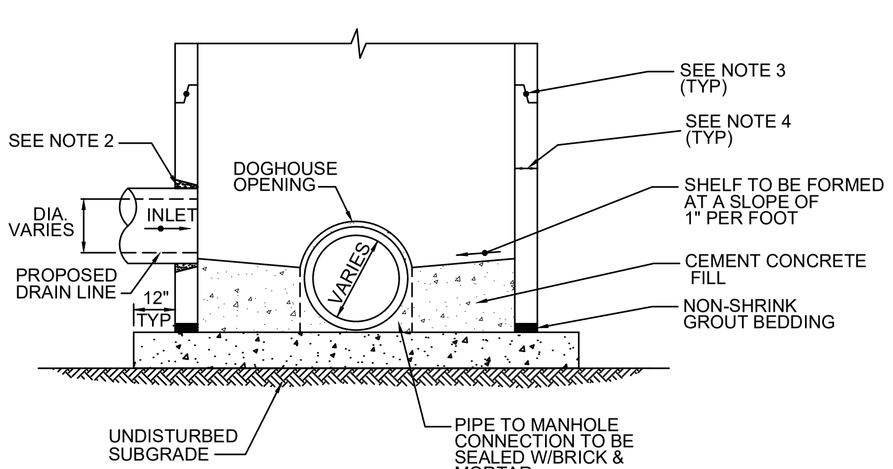
609255_HD(DET).DWG Plotted on 6-Nov-2023 10:19 PM
Proposal No. 609255-130934
A00850-48

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	46	71
PROJECT FILE NO. 609255			

CONSTRUCTION DETAILS

609255_HD(DET).DWG Plotted on 6-Nov-2023 10:19 PM





SECTION A-A

NOTES:

1. STRUCTURE SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS (NON-SHRINK GROUT).
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. FOR MANHOLES OVER 9' IN DEPTH, WALL THICKNESS SHALL BE 6" MIN. FOR MANHOLES 9' OR LESS IN DEPTH, WALL THICKNESS SHALL BE 5" MIN.

DRAIN MANHOLE OVER EXISTING PIPE

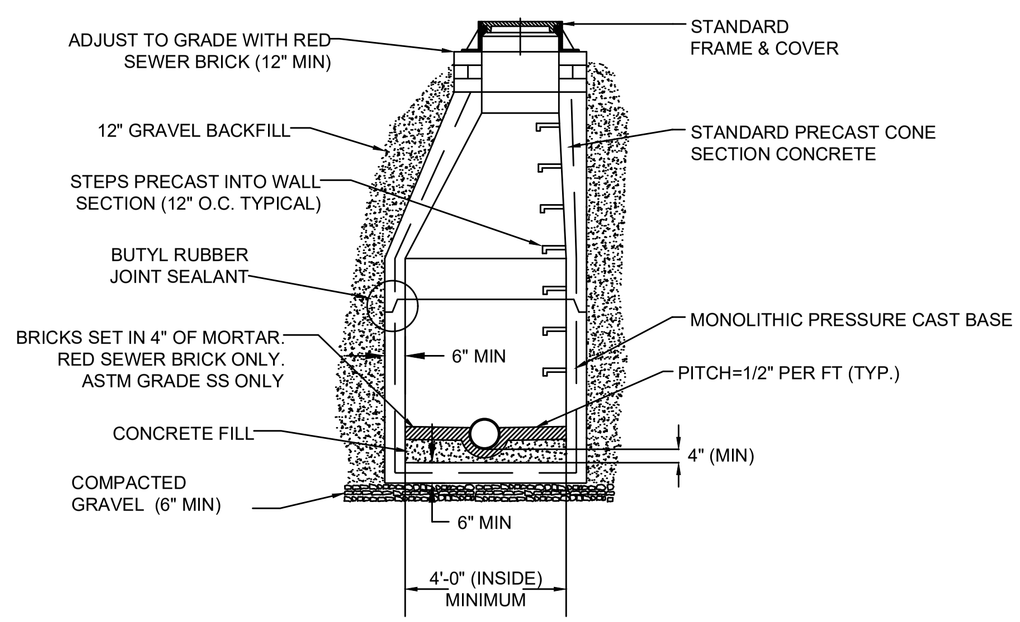
SCALE: NTS

NOTES:

1. EXISTING MATERIAL OBTAINED FROM EXCAVATION THAT IS DETERMINED TO BE SUITABLE AND APPROVED BY THE ENGINEER SHALL BE USED. STONES LARGER THAN 6" SHALL NOT BE USED. BACKFILL SHALL BE PLACED IN 6" MAX LIFTS AND COMPACTED. BACKFILL PLACED WITH 24" ABOVE THE PIPE SHALL CONTAIN NO STONES LARGER THAN 3".
2. SOFT OR UNSUITABLE MATERIAL EXISTING BELOW THE BEDDING GRADE SHALL BE REMOVED AS DIRECTED. REPLACEMENT GRAVEL BORROW, TYPE C OR CRUSHED STONE SHALL BE COMPACTED.
3. CRUSHED STONE TO BE USED DURING WET CONDITIONS AS DIRECTED BY THE ENGINEER.
4. IN AREAS OF FULL DEPTH PAVEMENT, CONTINUE SUITABLE BACKFILL. IF OPEN TO VEHICLE TRAFFIC, USE TEMPORARY ASPHALT PATCHING (ITEM 472.) PLACED IN 2.5" LIFTS (5" MIN)
5. IN AREAS OF MICROMILL & OVERLAY, PAVEMENT SHALL BE PLACED AS FOLLOWS: 2" SUPERPAVE SURFACE COURSE- 12.5 (SSC - 12.5) OVER 3" OF HMA FOR PATCHING (ITEM 451.)
6. THIS DETAIL ASSUMES FULL DEPTH PAVEMENT IS CONSTRUCTED AFTER PIPE IS INSTALLED.

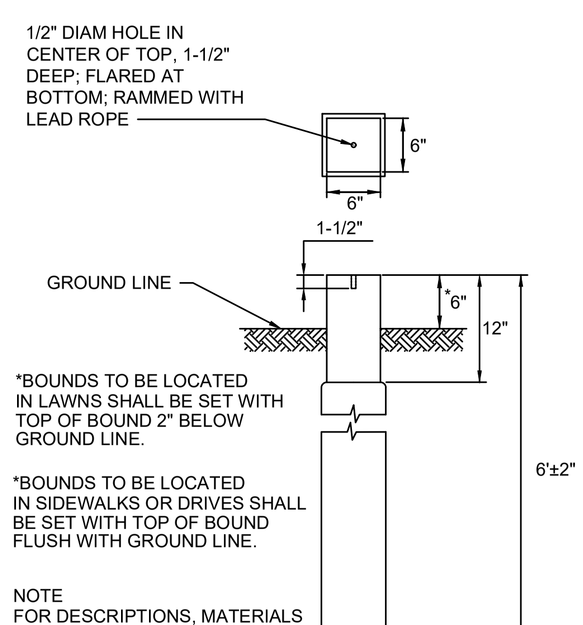
TRENCH DETAIL

SCALE: NTS



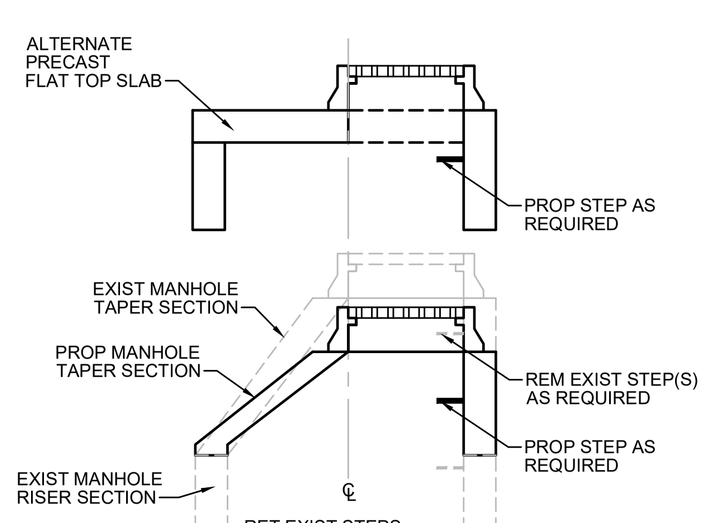
MANHOLE

SCALE: NTS



GRANITE BOUND

SCALE: NTS

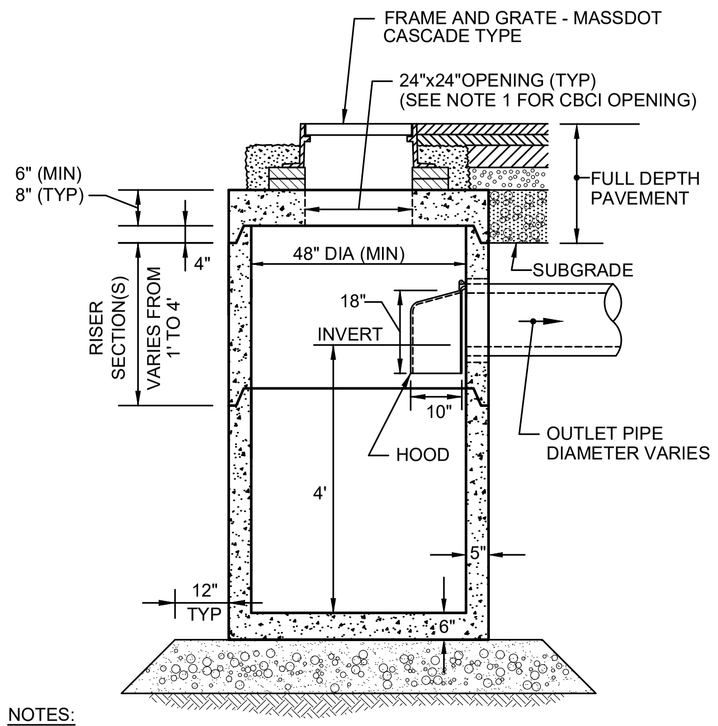


NOTE:

BASED ON ACTUAL FIELD CONDITIONS; THE CONTRACTOR SHALL DETERMINE WHICH STYLE OF TOP SECTION SHOULD BE USED.

DRAINAGE MANHOLE REBUILD

SCALE: NTS



NOTES:

1. TOP SLAB FOR CBCI SHALL HAVE 24"x 27" RECTANGULAR OPENING.
2. 6" MINIMUM SPACE FROM TOP OF KNOCKOUT TO BOTTOM OF ROOF SLAB JOINT REQUIRED WHEN USING HOODS.
3. ALL SECTIONS SHALL BE RATED FOR HS-20 LOADING.

CATCH BASIN WITH HOOD

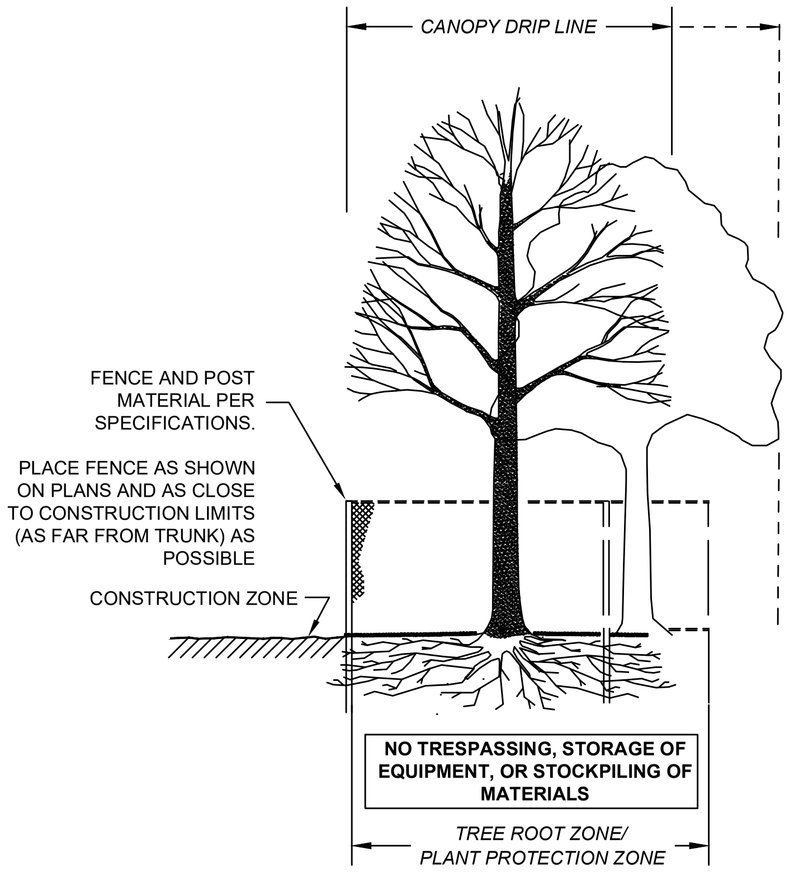
SCALE: NTS

A00850-49

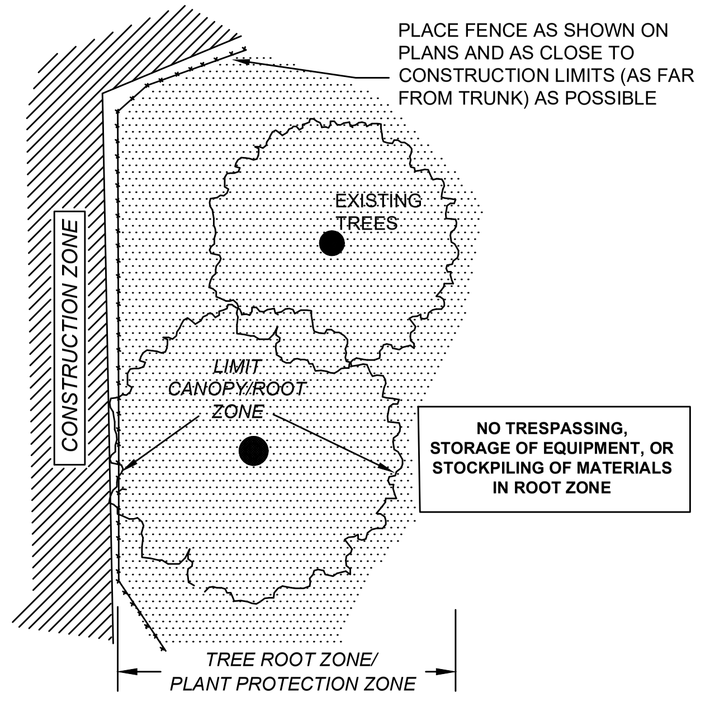
Proposal No. 609255-130934

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	47	71
PROJECT FILE NO. 609255			

CONSTRUCTION DETAILS



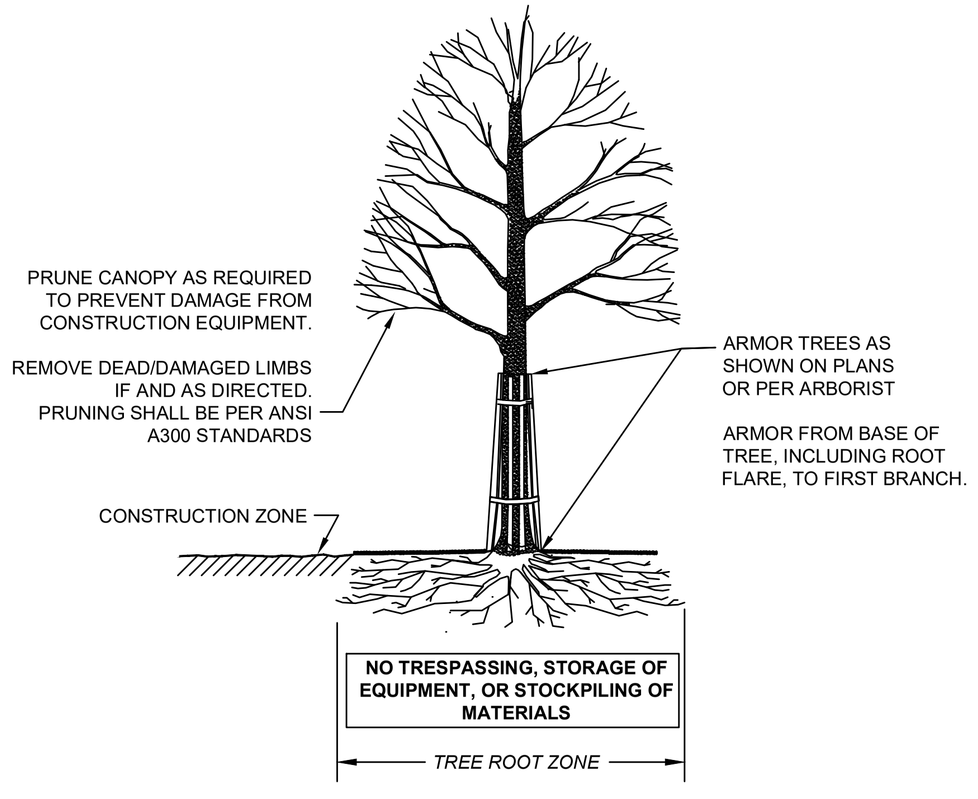
SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - ROOT ZONE

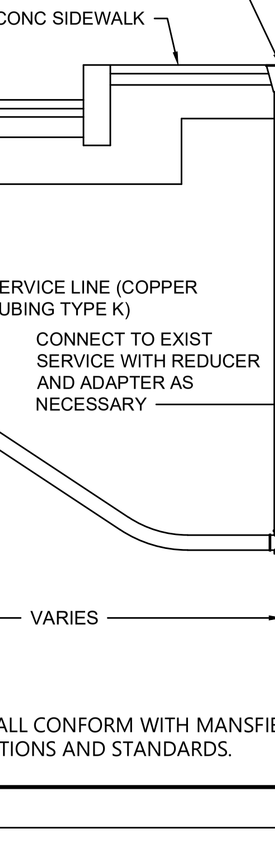
NOT TO SCALE



SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - TRUNK

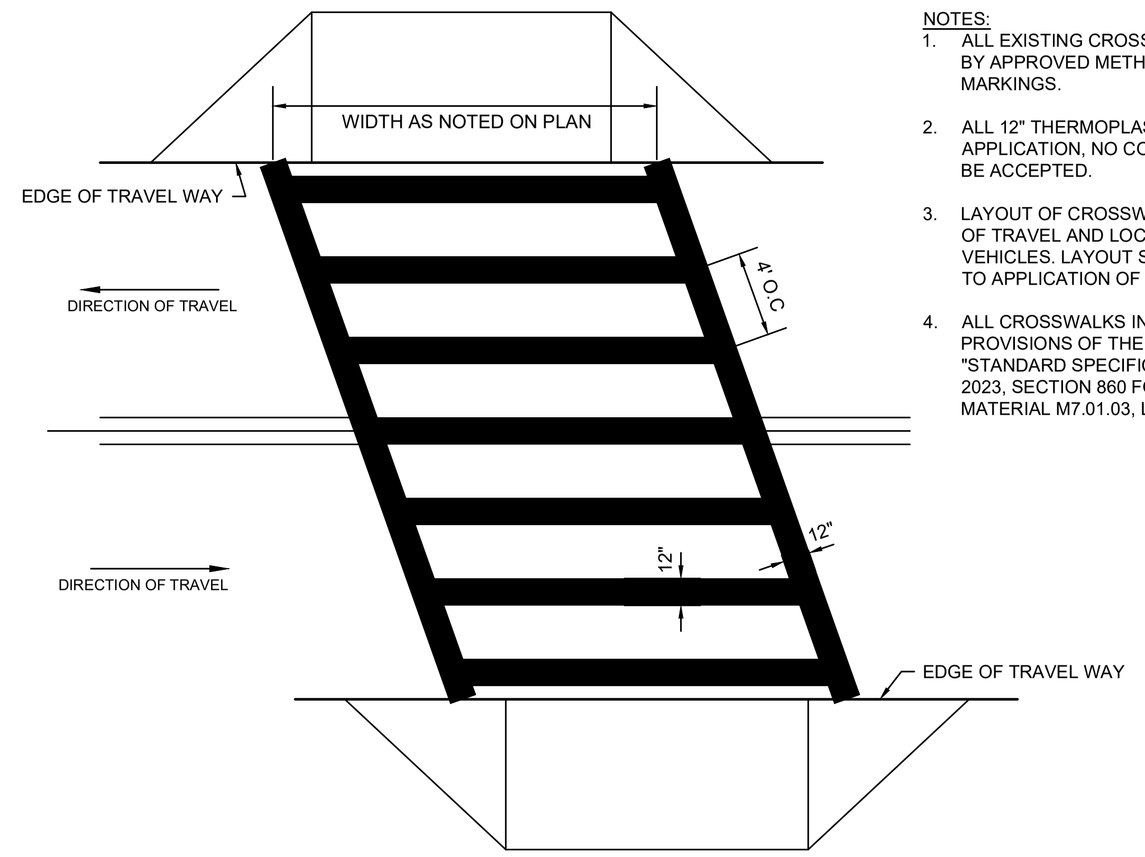
NOT TO SCALE



NOTES:
1. SEE MUTCD FIGURE 9C-6 FOR MORE INFORMATION.
2. BIKE LANE MARKINGS SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC.

BIKE LANE PAVEMENT MARKINGS

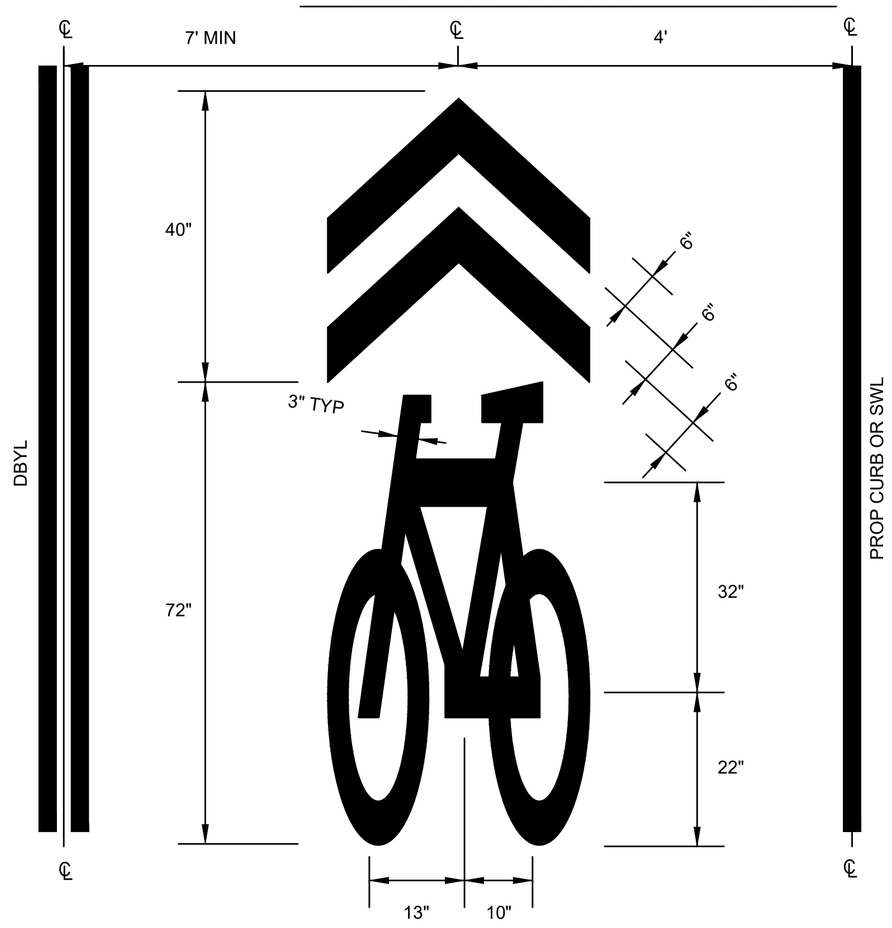
SCALE: N.T.S. DWG: PM-11 DATE: NOV 2015



NOTES:
1. ALL EXISTING CROSSWALK MARKINGS SHALL BE FULLY ERADICATED BY APPROVED METHOD PRIOR TO THE APPLICATION OF PROPOSED MARKINGS.
2. ALL 12" THERMOPLASTIC LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (e.g.,TWO - 6" LINES) WILL BE ACCEPTED.
3. LAYOUT OF CROSSWALKS SHALL BE ORIENTATED IN THE DIRECTION OF TRAVEL AND LOCATED OUTSIDE OF THE WHEEL PATH OF VEHICLES. LAYOUT SHALL BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION OF THERMOPLASTIC.
4. ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGES" DATED 2023, SECTION 860 FOR REFLECTORIZED LINE (THERMO-PLASTIC) & MATERIAL M7.01.03, LATEST REVISIONS.

LADDER STYLE CROSSWALK - 12" WIDE LINES

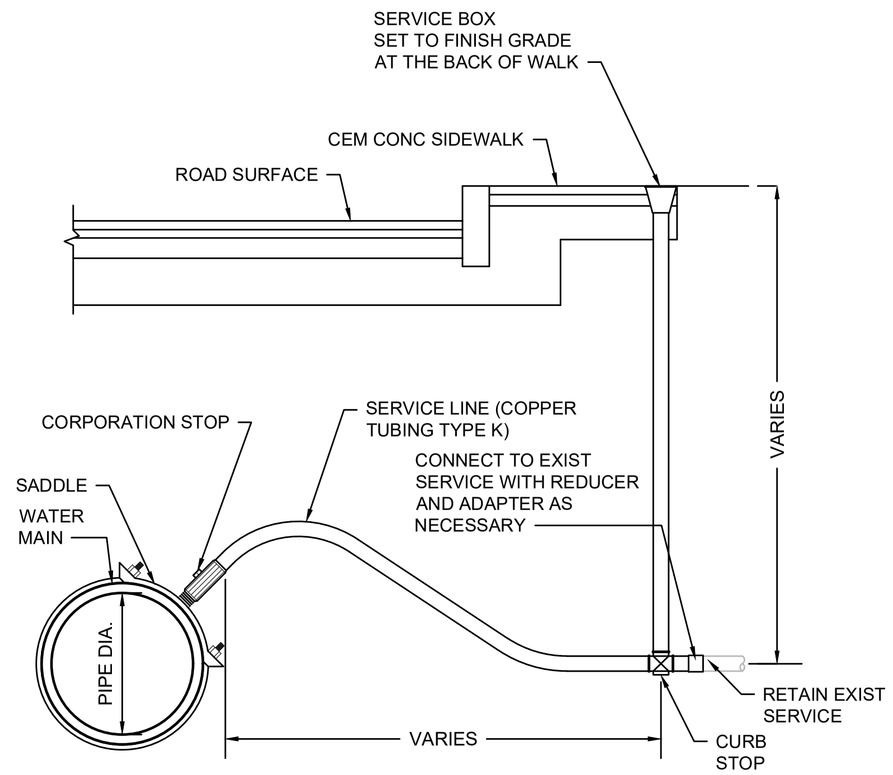
SCALE: N.T.S. DWG: PM-27 DATE: NOVEMBER 2022



NOTES:
1. SEE MUTCD FIGURE 9C-9 FOR MORE INFORMATION.
2. SHARED LANE MARKINGS SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC.

SHARED LANE (SHARROW) PAVEMENT MARKING LAYOUT

SCALE: N.T.S. DWG: PM-14 DATE: NOVEMBER 2022



NOTES

1. INSTALLATIONS SHALL CONFORM WITH MANSFIELD WATER DISTRICT SPECIFICATIONS AND STANDARDS.

WATER SERVICE

SCALE: N.T.S.

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	48	71
PROJECT FILE NO. 609255			

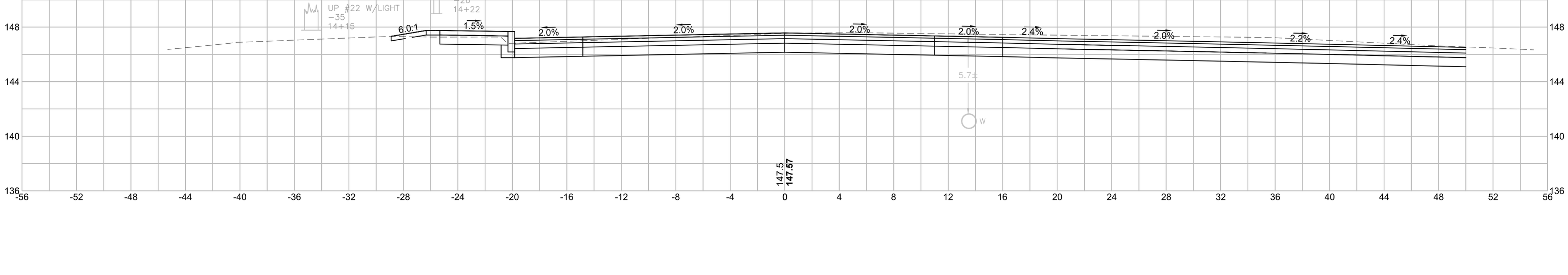
SCHOOL ST CROSS SECTIONS

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:04 AM

Proposal No. 609255-130934

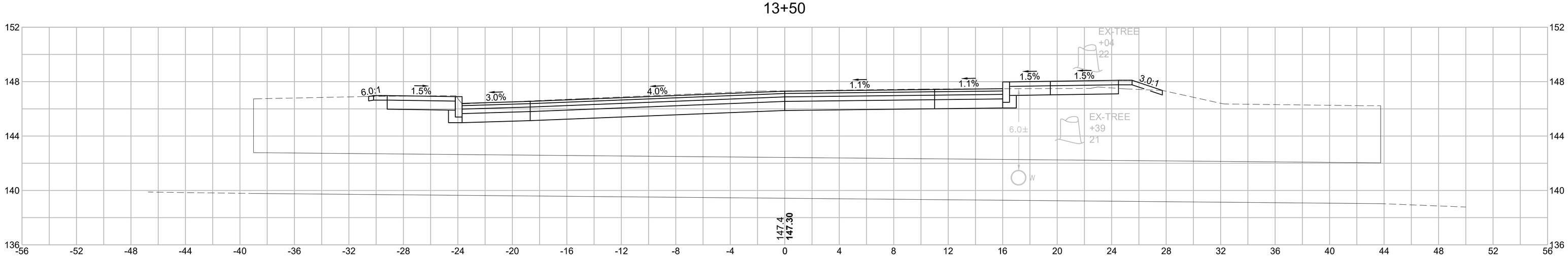
A00850-51

14+00



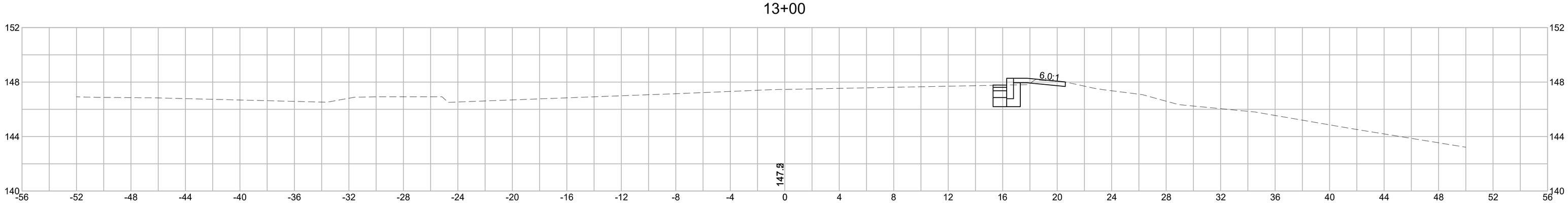
CUT: 104.31 SF
FILL: 0.14 SF

13+50



CUT: 76.19 SF
FILL: 0.00 SF

13+00



CUT: 0.04 SF
FILL: 0.05 SF

HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	49	71
PROJECT FILE NO. 609255			

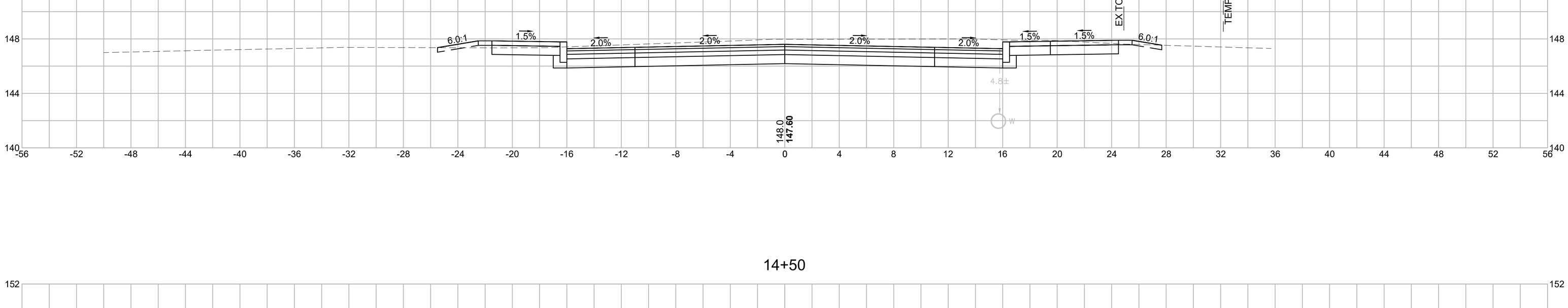
SCHOOL ST CROSS SECTIONS

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Proposal No. 609255-130934

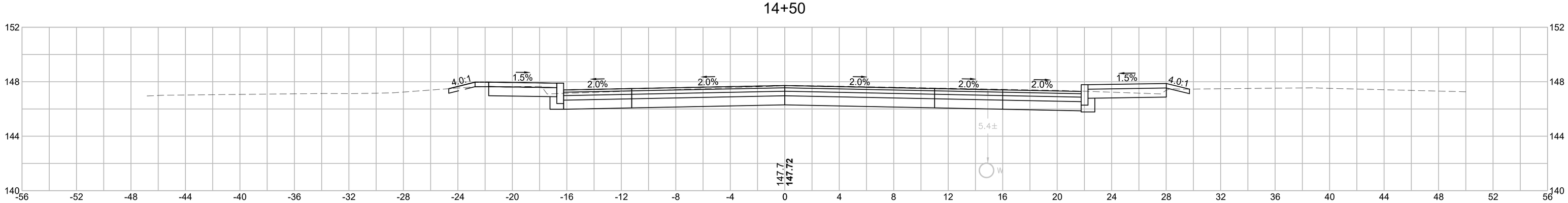
A00850-52

15+00



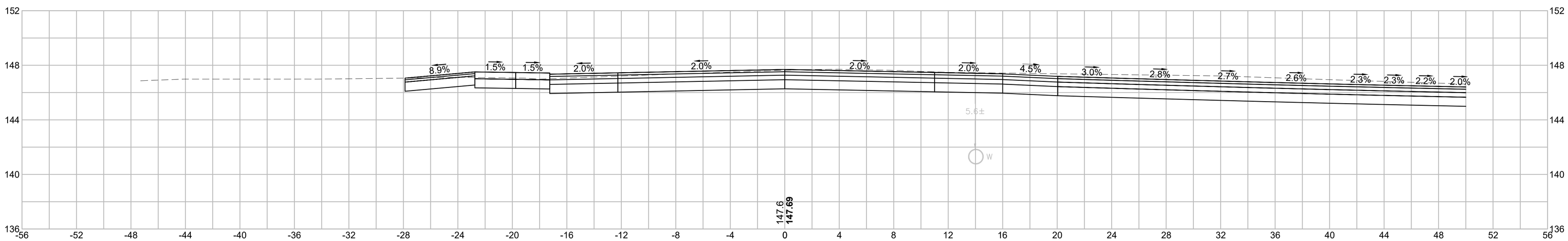
CUT: 72.11 SF
FILL: 0.27 SF

14+50



CUT: 56.62 SF
FILL: 0.02 SF

14+30



CUT: 104.46 SF
FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	50	71
PROJECT FILE NO. 609255			

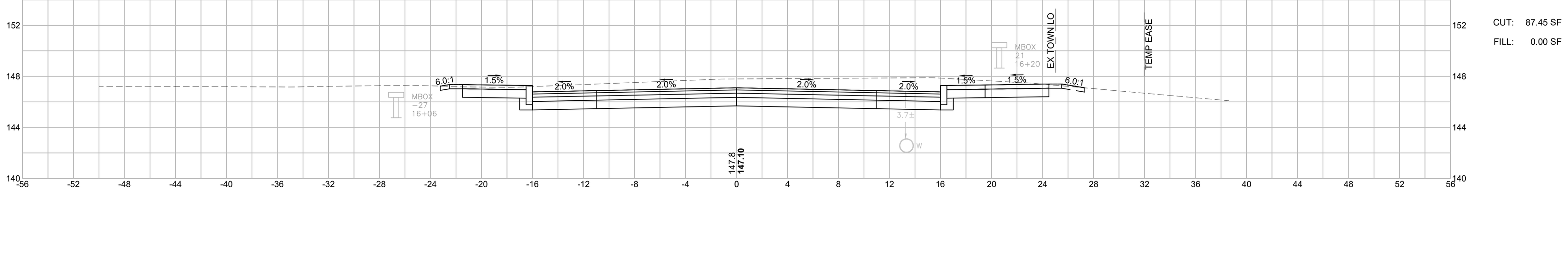
SCHOOL ST CROSS SECTIONS

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:04 AM

Proposal No. 609255-130934

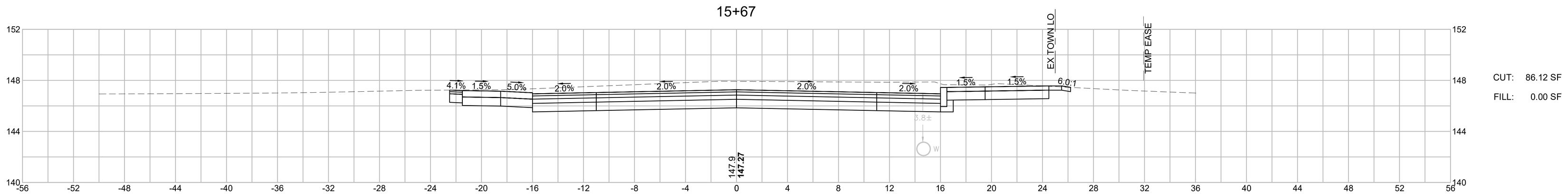
A00850-53

16+00



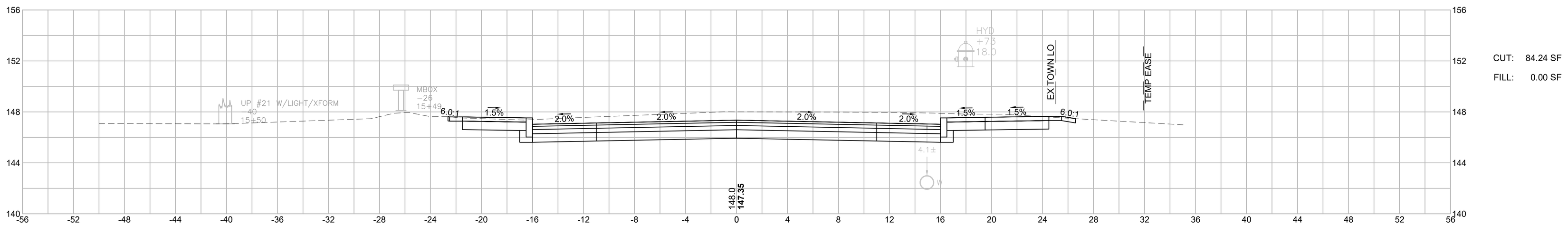
CUT: 87.45 SF
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15+67



CUT: 86.12 SF
FILL: 0.00 SF

15+50



CUT: 84.24 SF
FILL: 0.00 SF

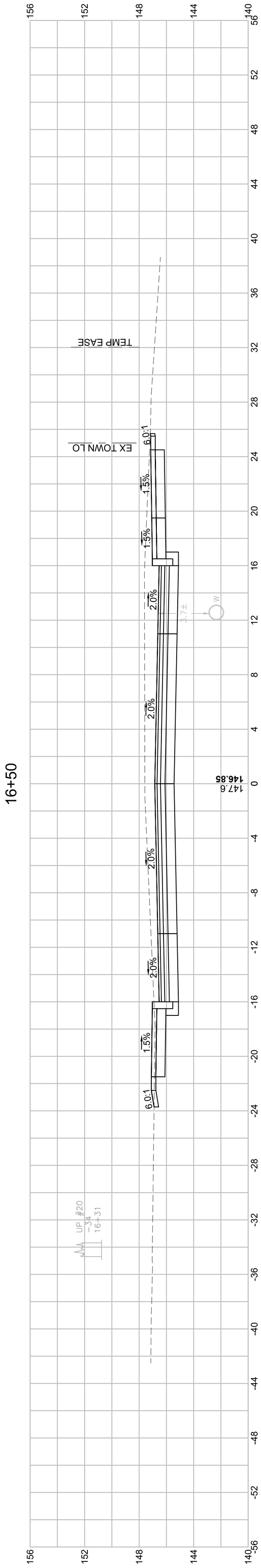
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

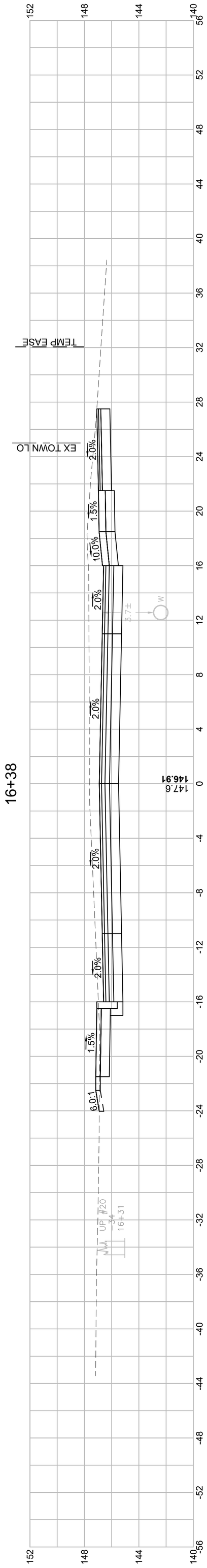
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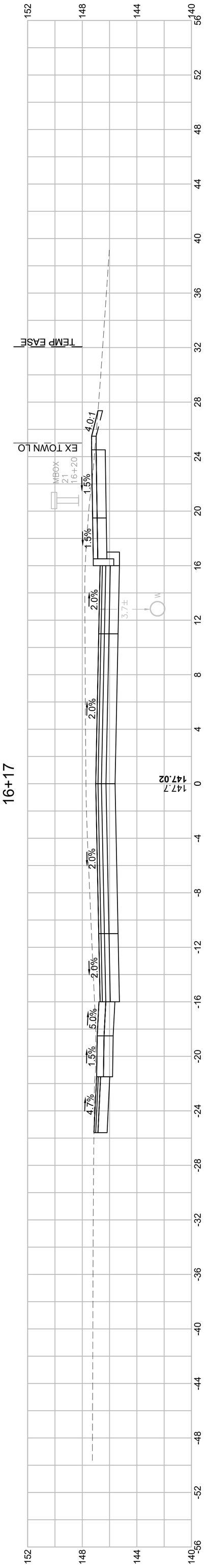
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	51	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS





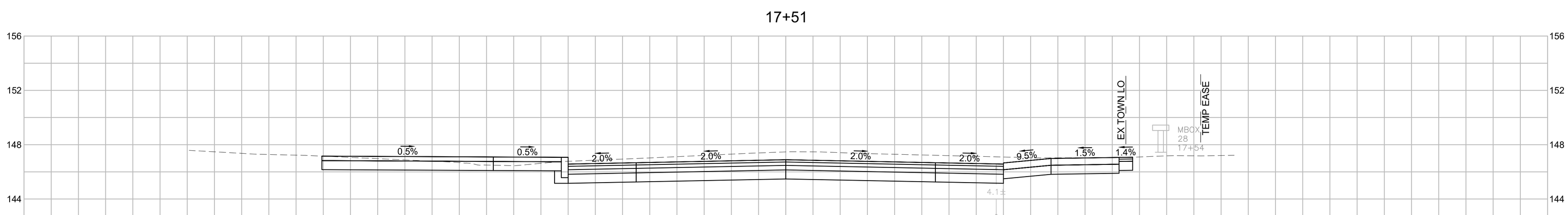


MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	52	71
PROJECT FILE NO. 609255			

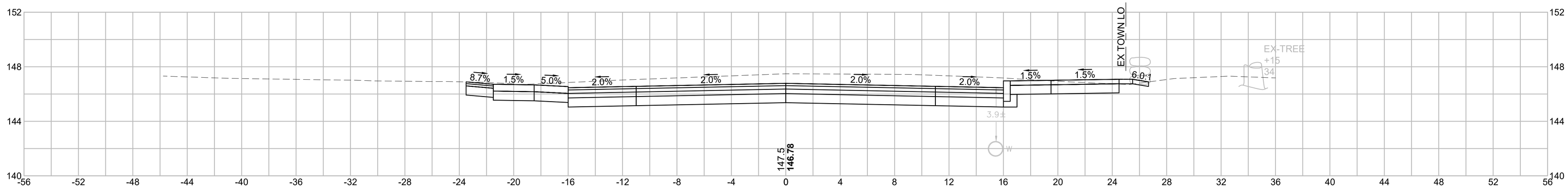
SCHOOL ST CROSS SECTIONS

17+51



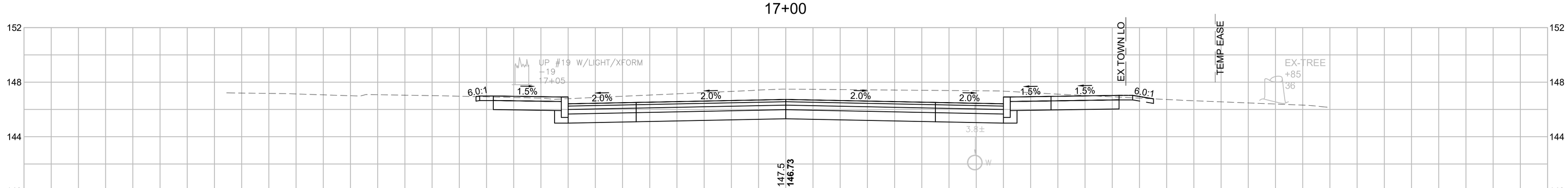
CUT: 85.17 SF
FILL: 0.00 SF

17+27



CUT: 84.59 SF
FILL: 0.04 SF

17+00



CUT: 84.75 SF
FILL: 0.00 SF

HOR. SCALE IN FEET
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4 0 4 8
VER. SCALE IN FEET

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:05 AM

A00850-55

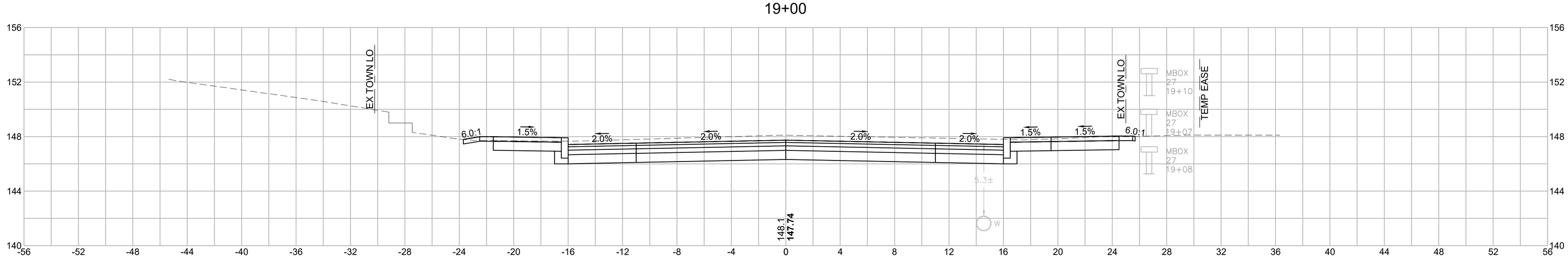
Proposal No. 609255-130934

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	53	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

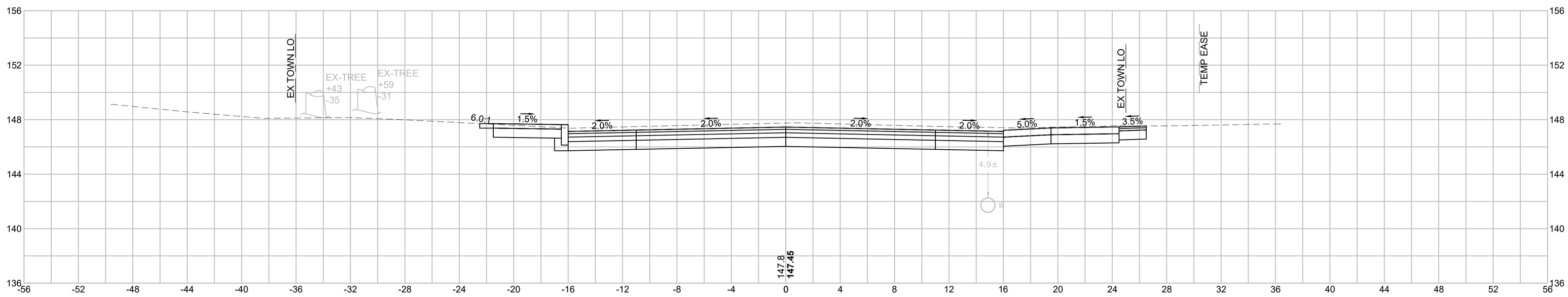
19+00



CUT: 70.32 SF

FILL: 0.00 SF

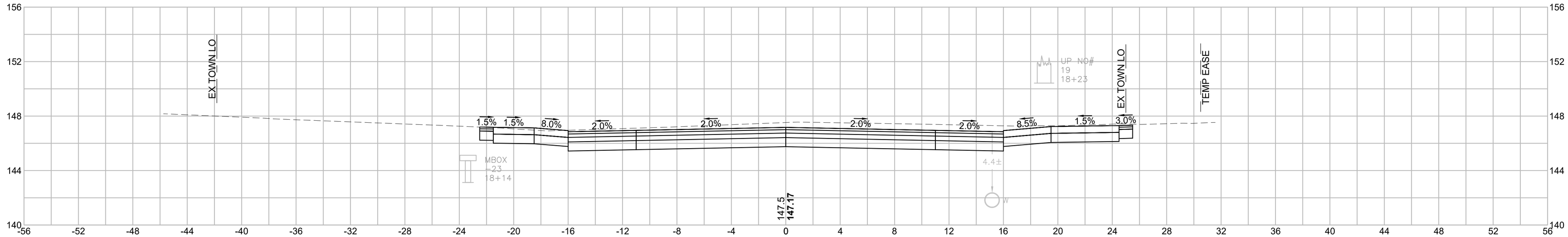
18+50



CUT: 72.80 SF

FILL: 0.00 SF

18+00



CUT: 74.11 SF

FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:05 AM

A00850-56

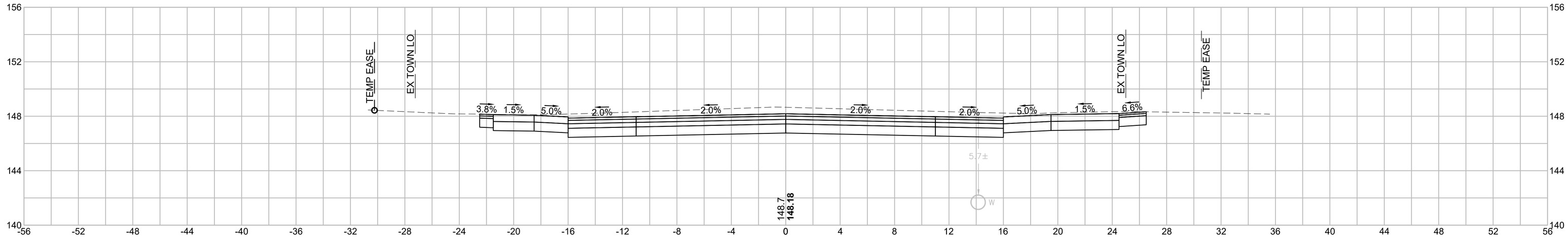
Proposal No. 609255-130934

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	54	71
PROJECT FILE NO. 609255			

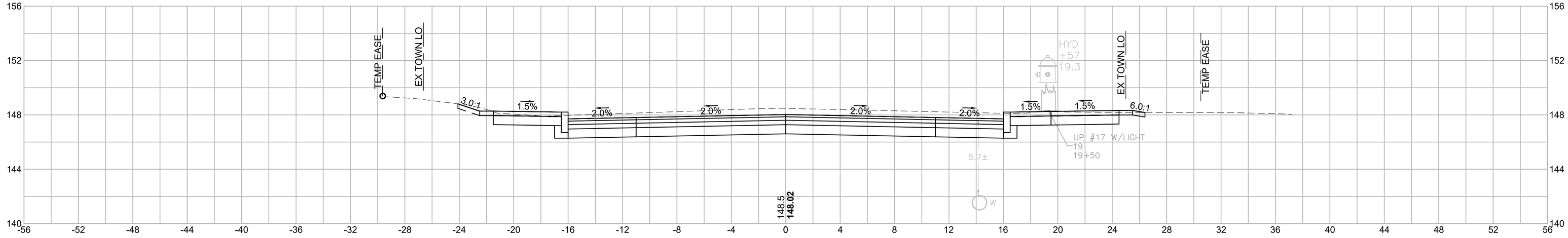
SCHOOL ST CROSS SECTIONS

19+78



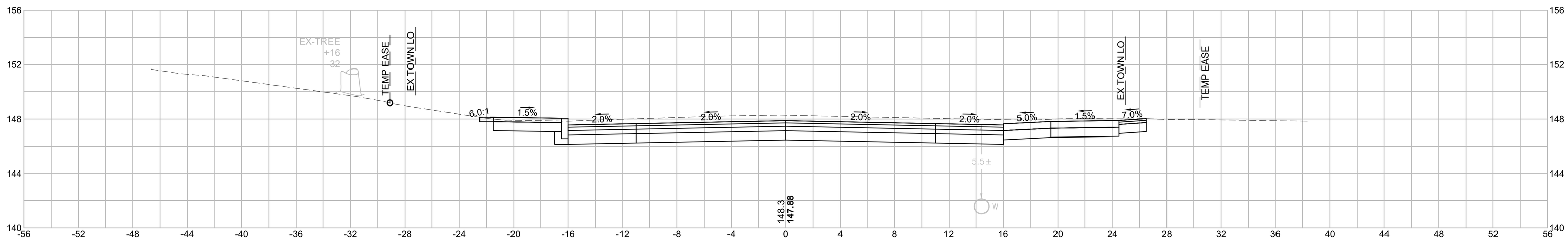
CUT: 79.47 SF
FILL: 0.00 SF

19+50



CUT: 73.20 SF
FILL: 0.00 SF

19+25



CUT: 77.01 SF
FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:05 AM

Proposal No. 609255-130934

A00850-57

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:05 AM

MANSFIELD
SCHOOL STREET

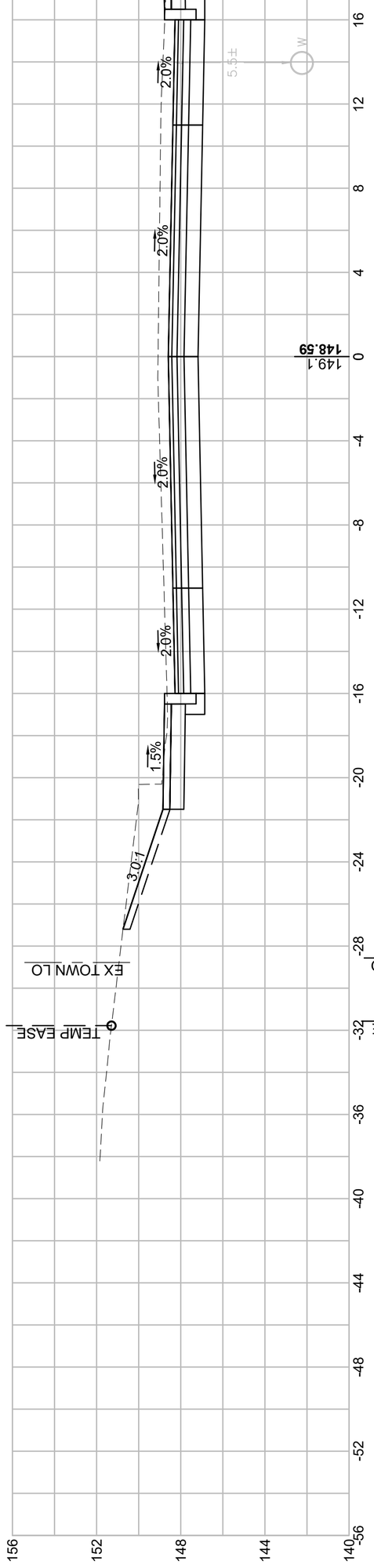
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	55	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

CUT: 76.24 SF
FILL: 0.00 SF

CUT: 82.95 SF
FILL: 0.00 SF

CUT: 76.50 SF
FILL: 0.00 SF

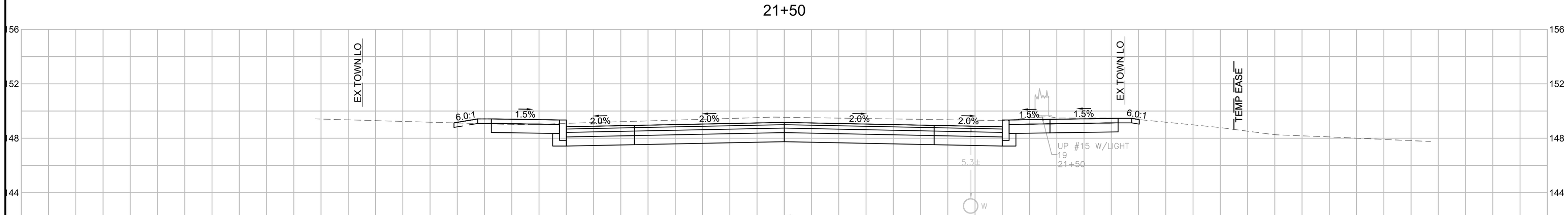


MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	56	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

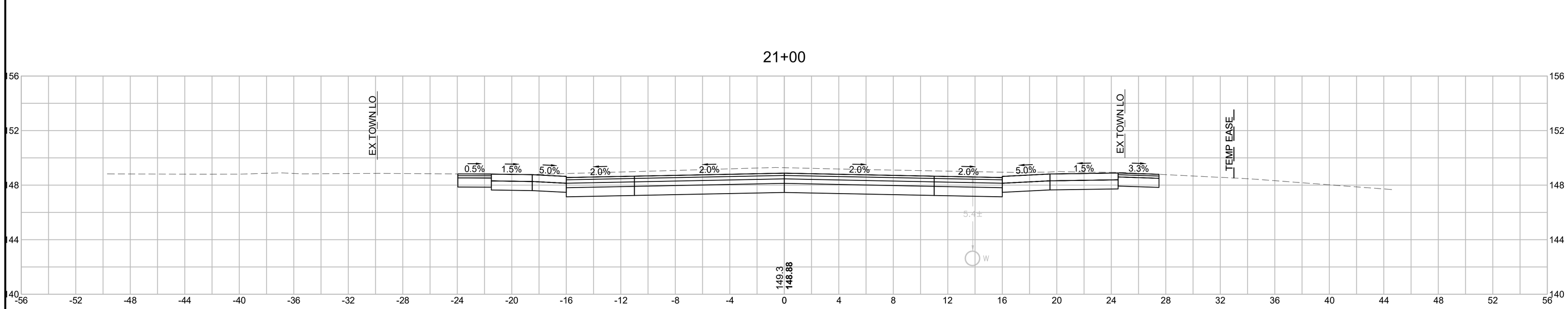
21+50



CUT: 72.65 SF

FILL: 0.02 SF

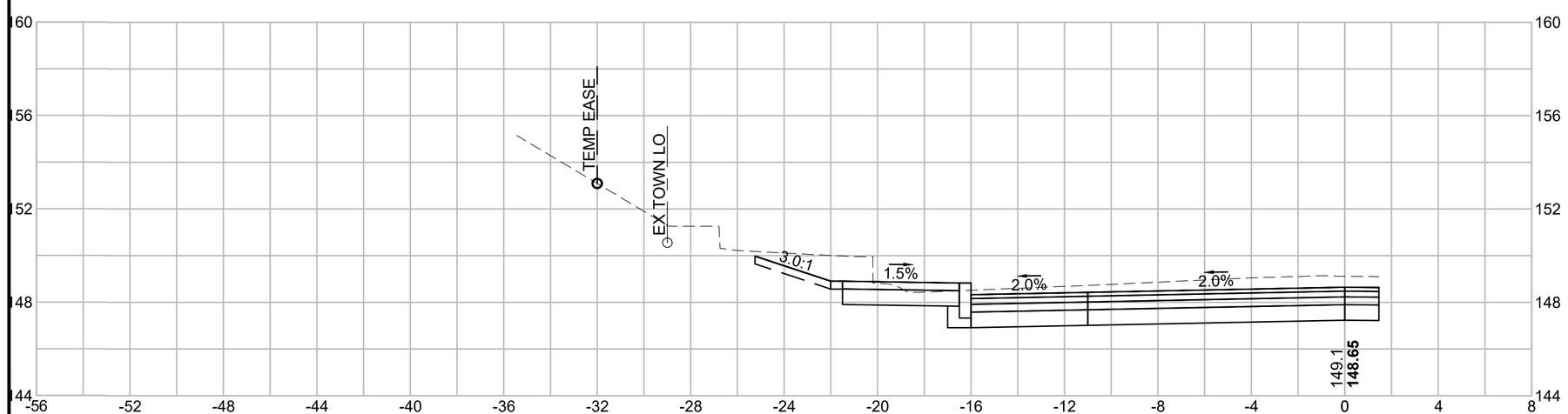
21+00



CUT: 80.76 SF

FILL: 0.00 SF

20+60



CUT: 35.09 SF

FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

A00850-59

Proposal No. 609255-130934

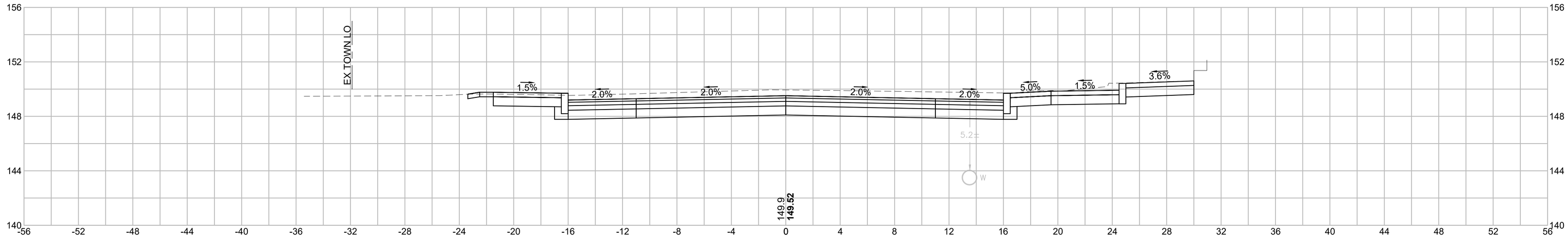
609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:05 AM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	57	71
PROJECT FILE NO. 609255			

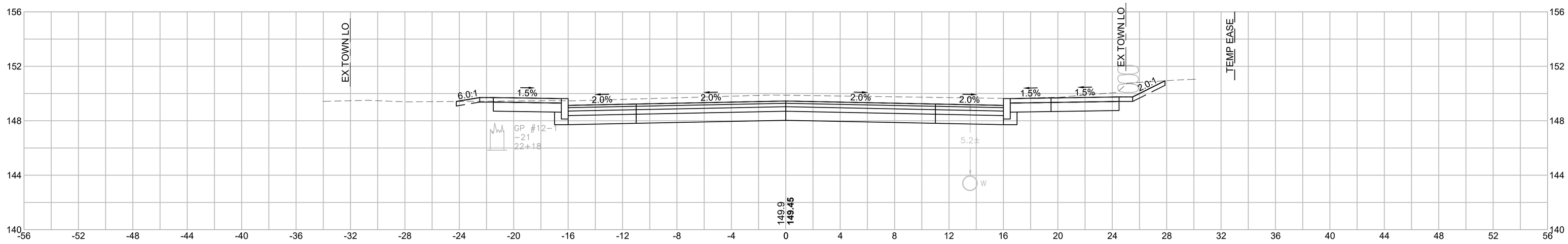
SCHOOL ST CROSS SECTIONS

22+12



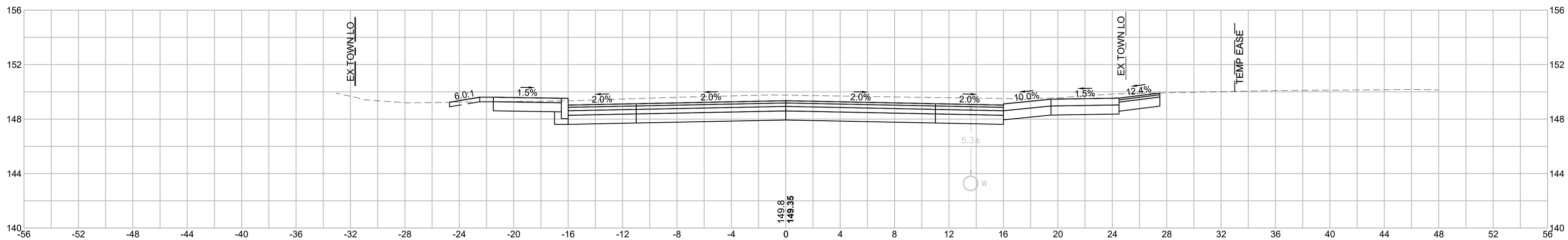
CUT: 83.18 SF
FILL: 0.00 SF

22+00



CUT: 78.52 SF
FILL: 0.00 SF

21+83



CUT: 79.15 SF
FILL: 0.01 SF

HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:05 AM

Proposal No. 609255-130934

A00850-60

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:06 AM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	58	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

23+00

CUT: 73.86 SF
FILL: 0.25 SF

22+75

CUT: 78.96 SF
FILL: 0.03 SF

22+50

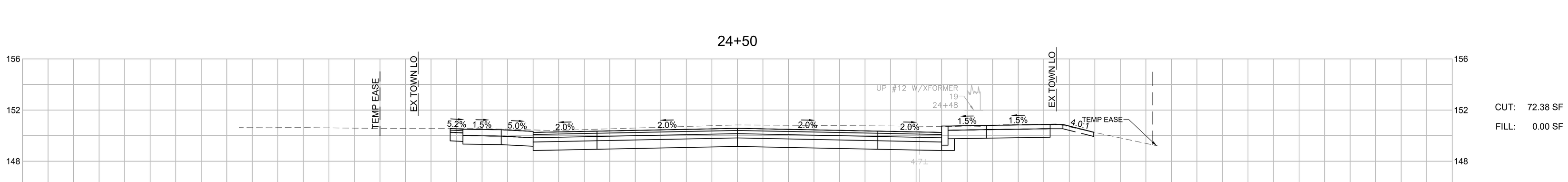
CUT: 76.72 SF
FILL: 0.54 SF

HOR. SCALE IN FEET
VER. SCALE IN FEET

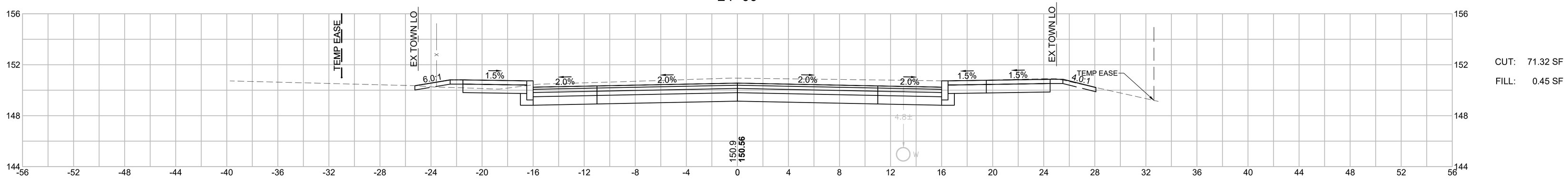
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	59	71
PROJECT FILE NO. 609255			

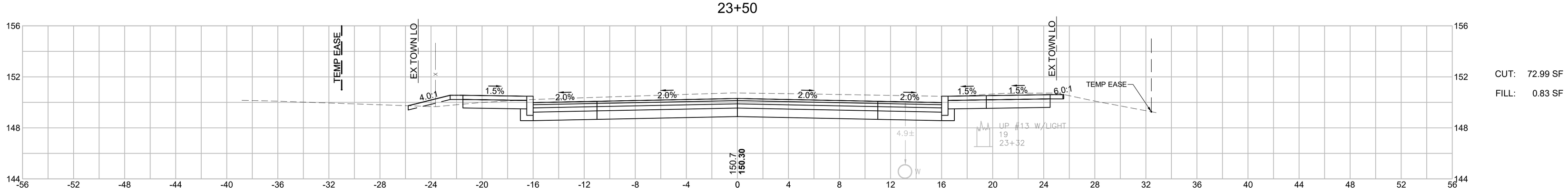
SCHOOL ST CROSS SECTIONS



CUT: 72.38 SF
FILL: 0.00 SF



CUT: 71.32 SF
FILL: 0.45 SF



CUT: 72.99 SF
FILL: 0.83 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:06 AM

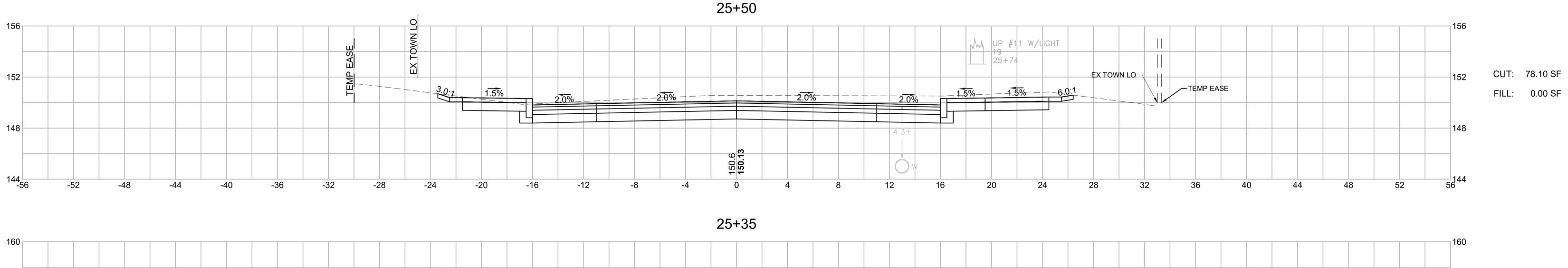
A00850-62

Proposal No. 609255-130934

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	60	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS



CUT: 78.10 SF
FILL: 0.00 SF

CUT: 78.40 SF
FILL: 0.00 SF

CUT: 70.20 SF
FILL: 0.78 SF

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:06 AM

Proposal No. 609255-130934

A00850-63

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	61	71
PROJECT FILE NO. 609255			

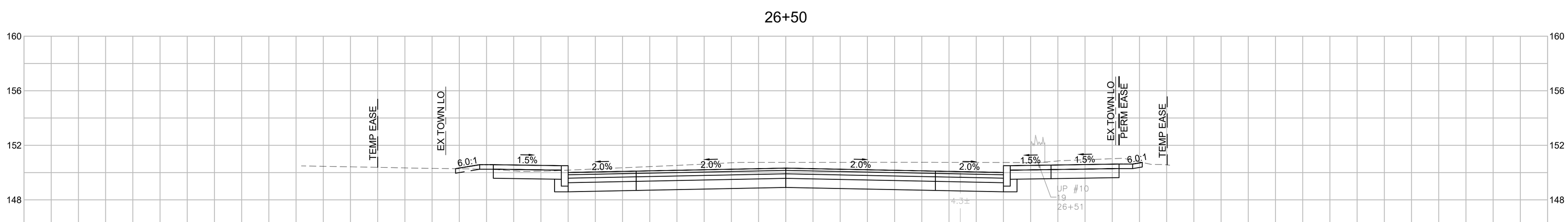
SCHOOL ST CROSS SECTIONS

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:06 AM

Proposal No. 609255-130934

A00850-64

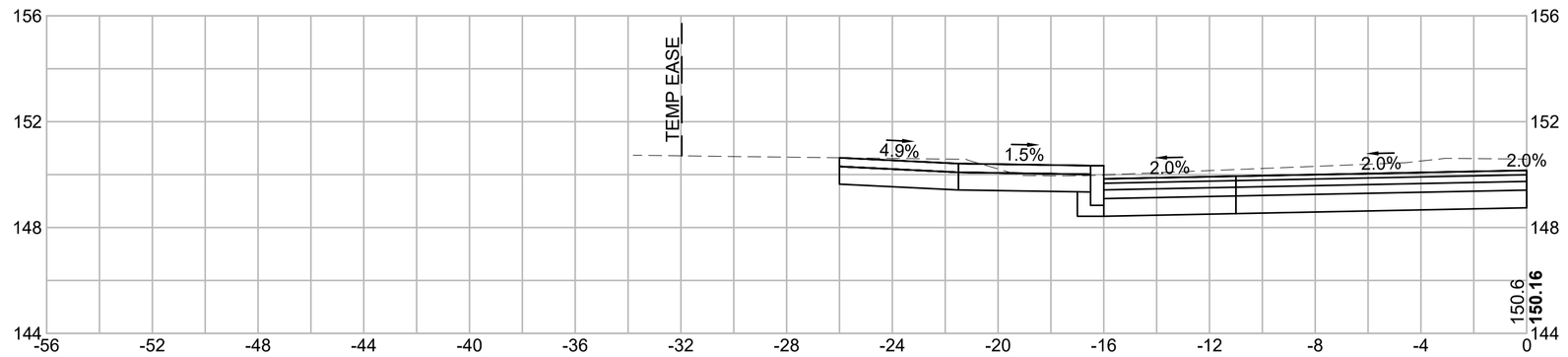
26+50



CUT: 77.75 SF

FILL: 0.00 SF

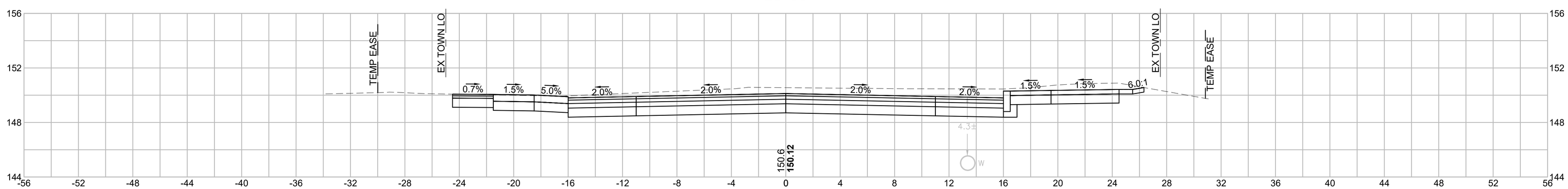
26+13



CUT: 57.55 SF

FILL: 0.00 SF

26+00



CUT: 83.39 SF

FILL: 0.00 SF

HOR. SCALE IN FEET

4 0 4 8

4 0 4 8

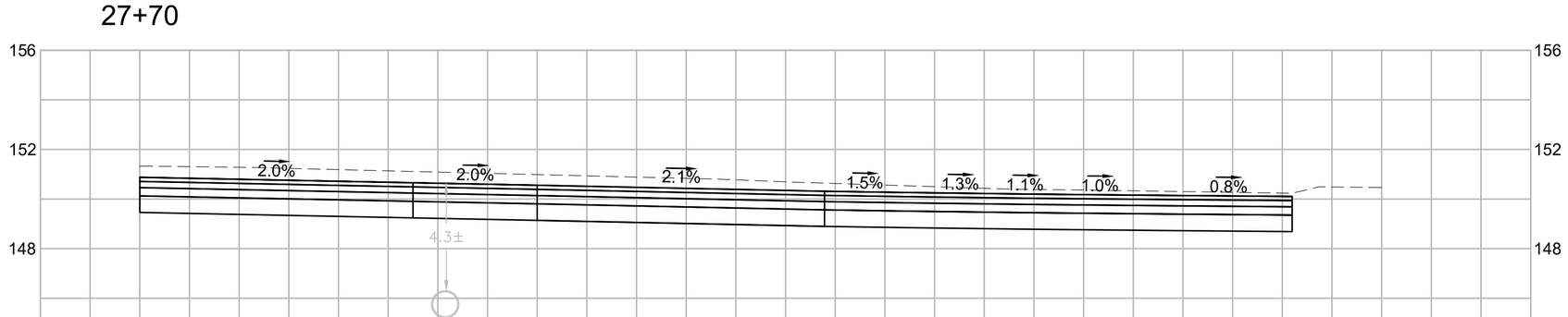
VER. SCALE IN FEET

MANSFIELD
SCHOOL STREET

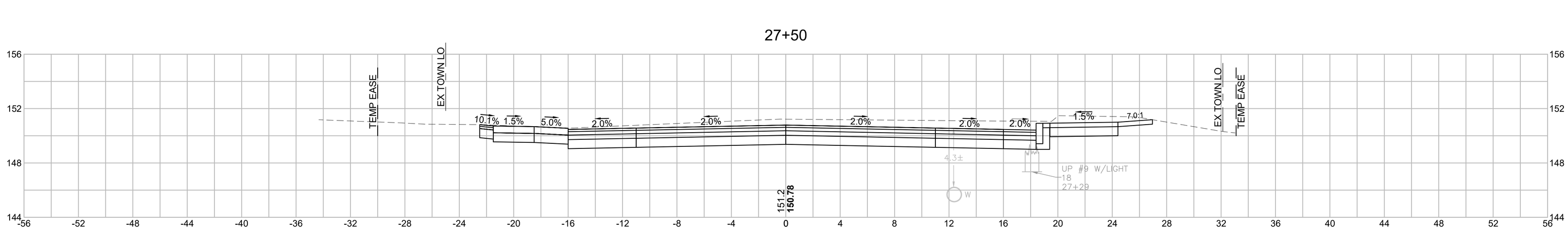
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	62	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

27+70

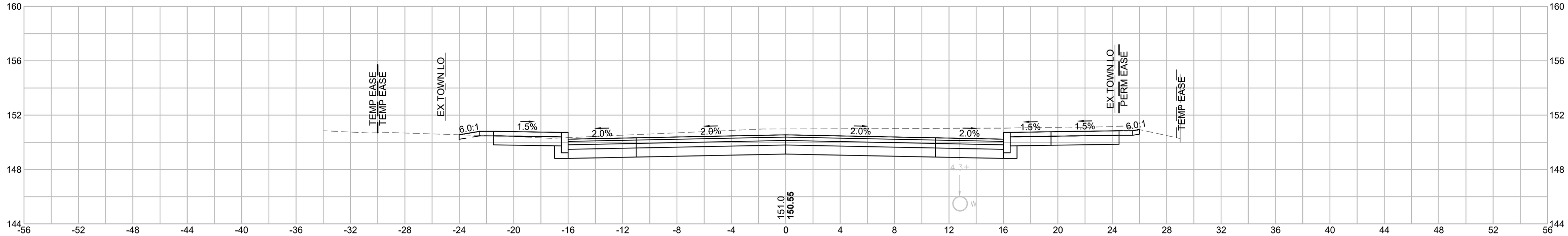


27+50



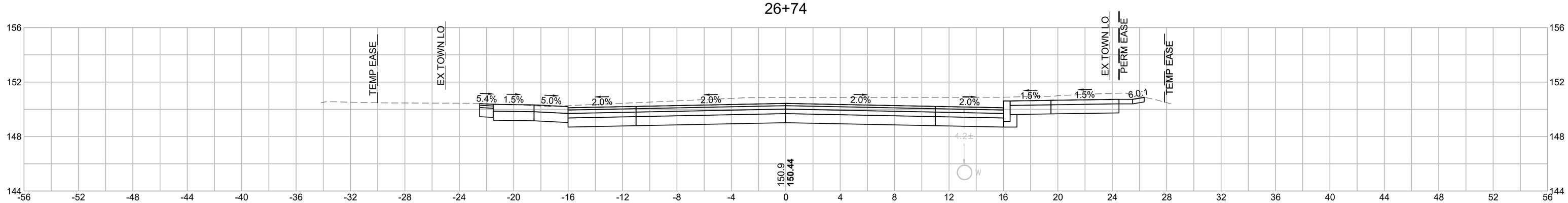
CUT: 65.60 SF
FILL: 0.00 SF

27+00



CUT: 77.57 SF
FILL: 0.00 SF

26+74



CUT: 81.19 SF
FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:06 AM

Proposal No. 609255-130934

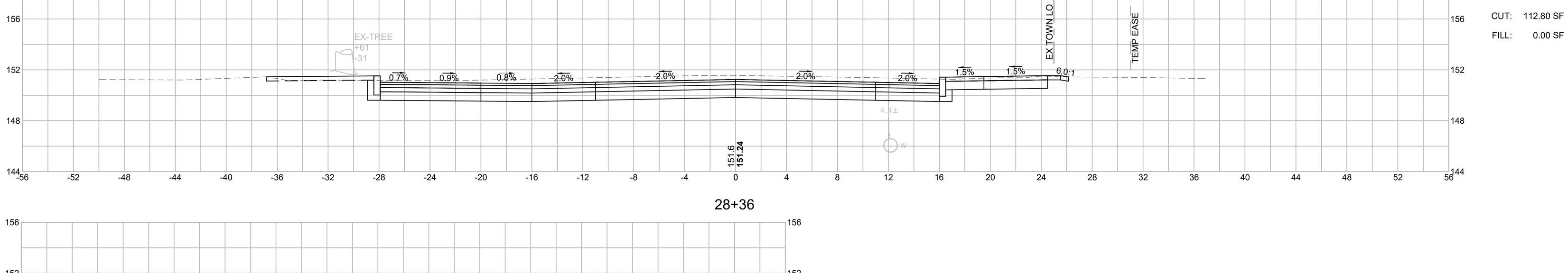
A00850-65

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	63	71
PROJECT FILE NO. 609255			

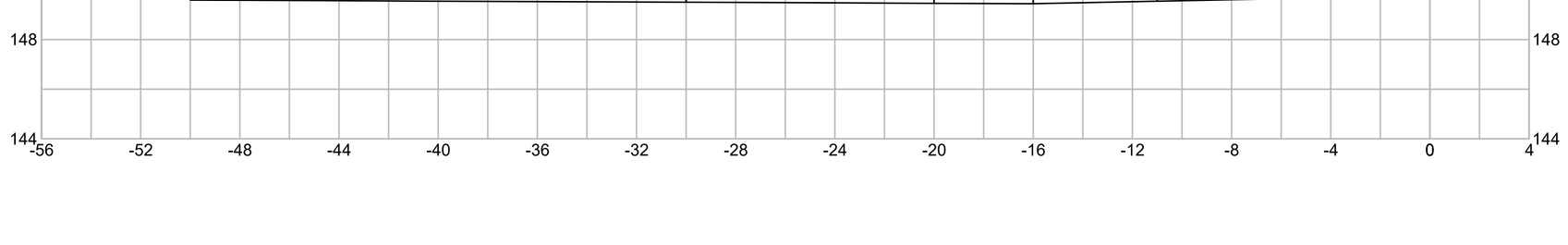
SCHOOL ST CROSS SECTIONS

28+50

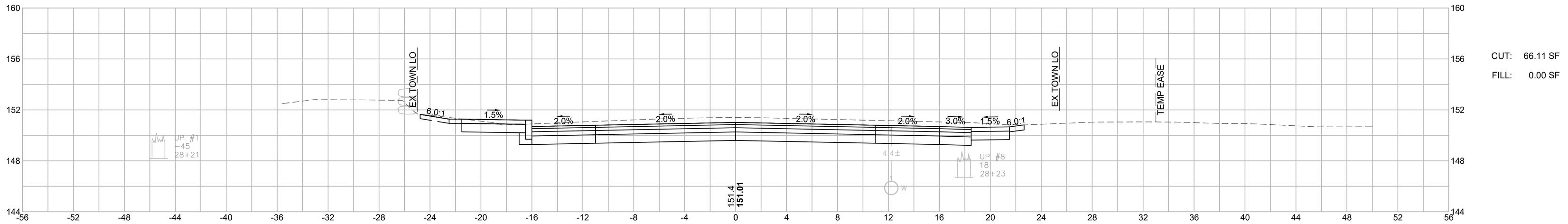


CUT: 112.80 SF
FILL: 0.00 SF

28+36

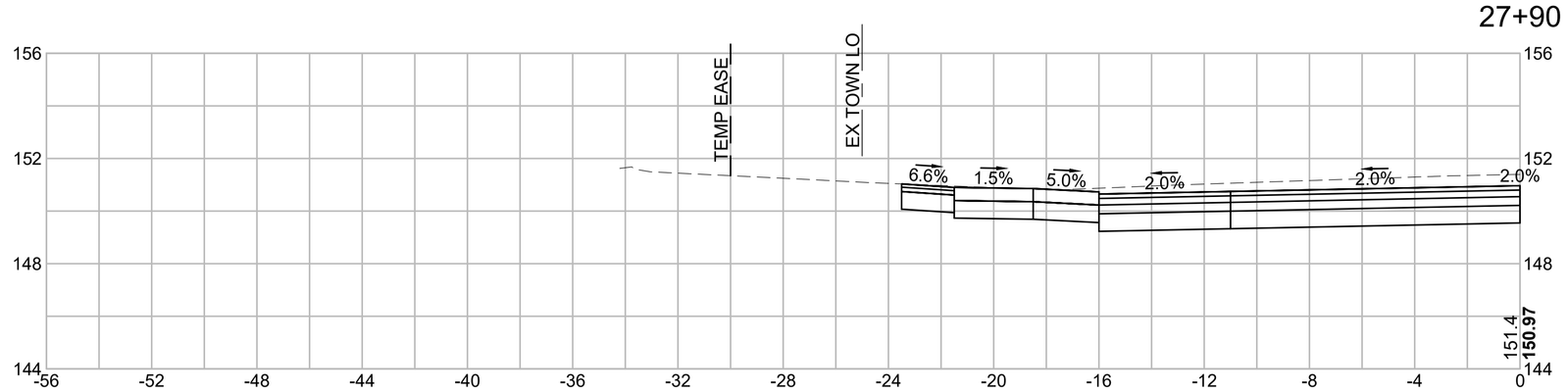


28+00



CUT: 66.11 SF
FILL: 0.00 SF

27+90



CUT: 55.62 SF
FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

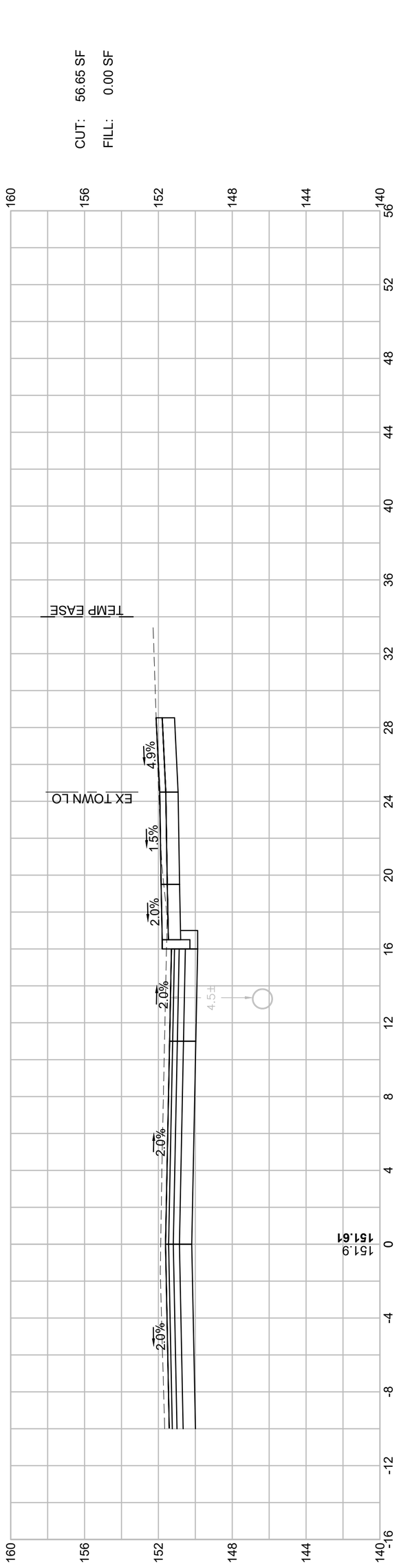
609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:06 AM
Proposal No. 609255-130934
A00850-66

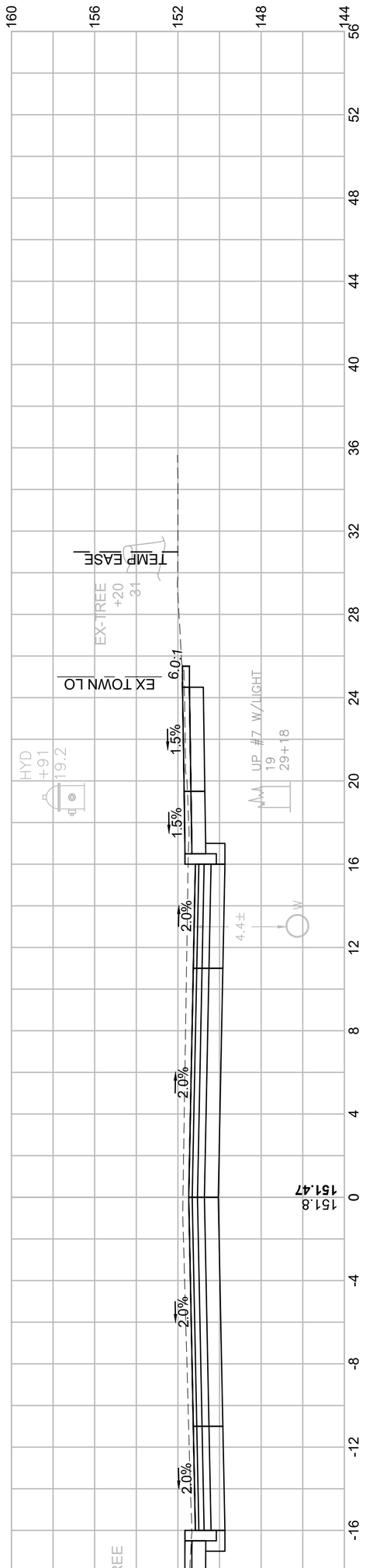
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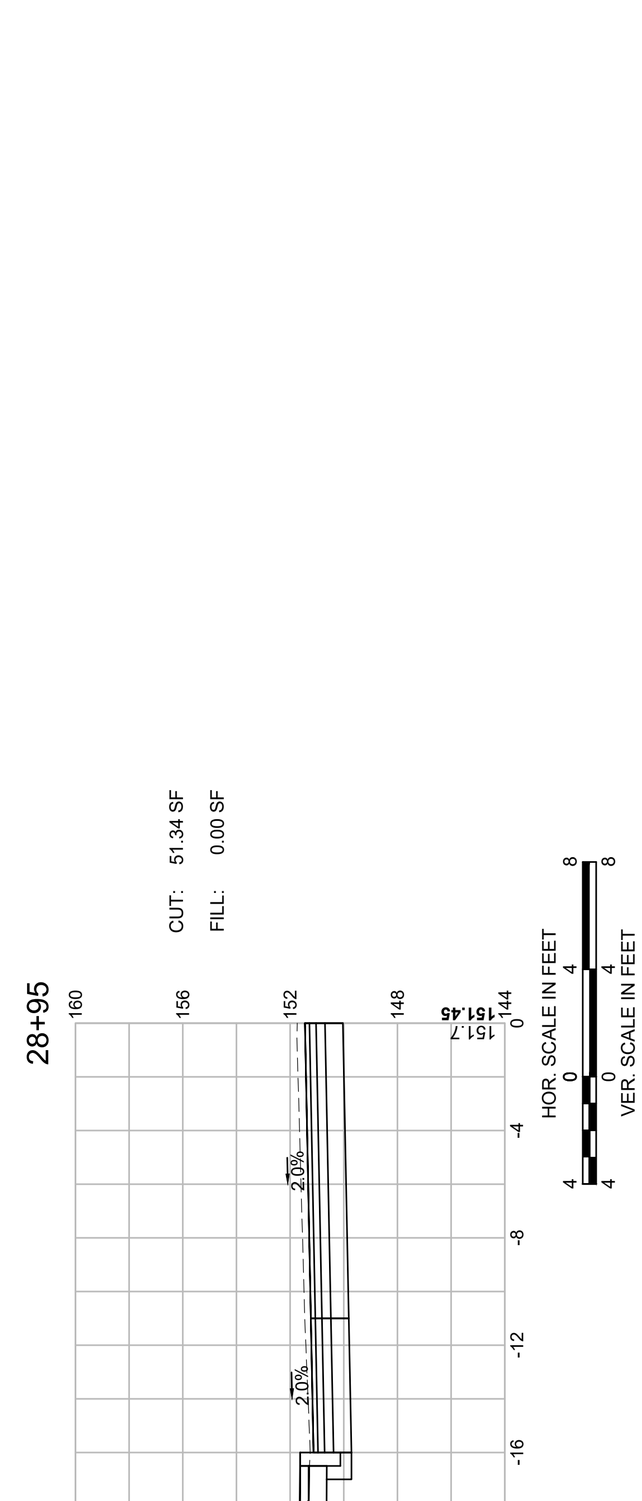
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	64	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS





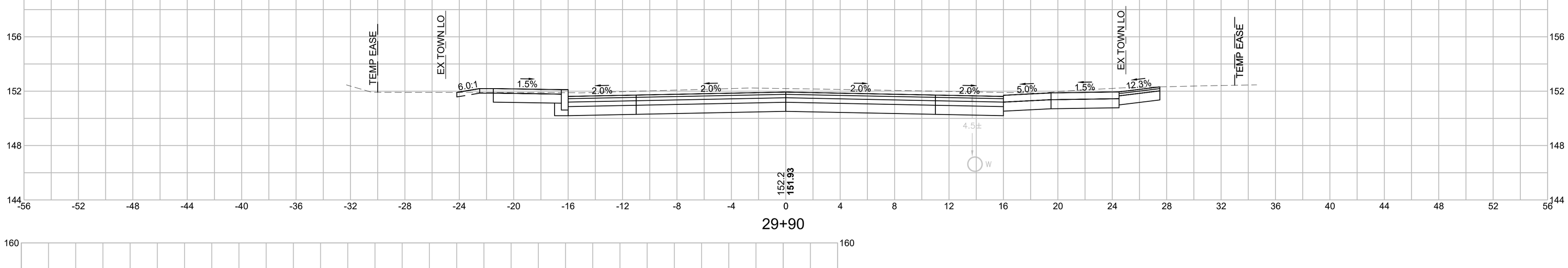


MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	65	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

30+00

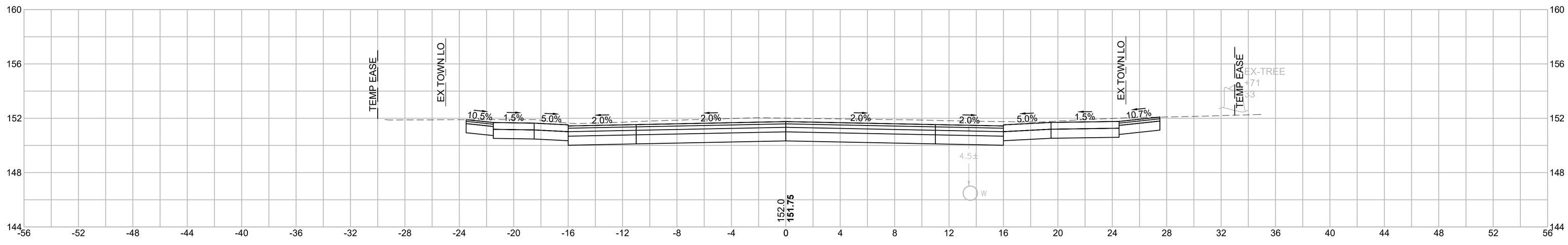


CUT: 74.47 SF
FILL: 0.00 SF

29+90

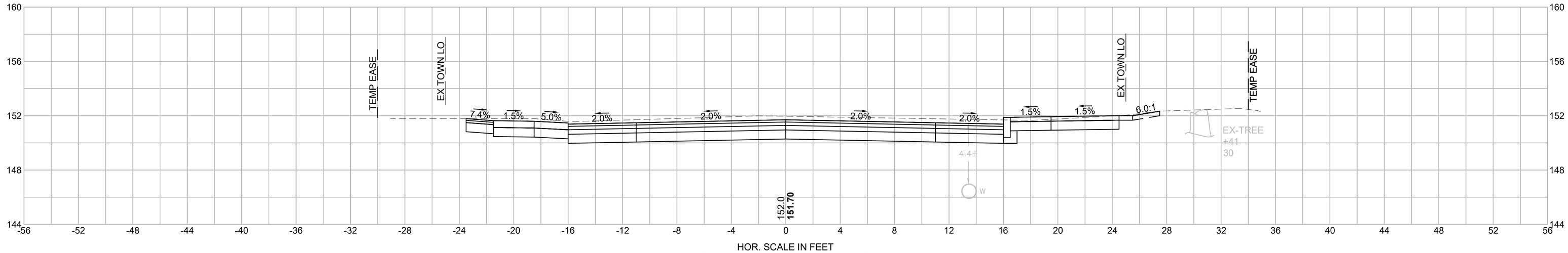


29+60



CUT: 78.34 SF
FILL: 0.00 SF

29+50



CUT: 72.62 SF
FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

A00850-68

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:07 AM

Proposal No. 609255-130934

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:07 AM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	66	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

30+50

CUT: 69.03 SF
FILL: 0.00 SF

30+33

CUT: 55.55 SF
FILL: 0.00 SF

30+25

CUT: 73.48 SF
FILL: 0.00 SF

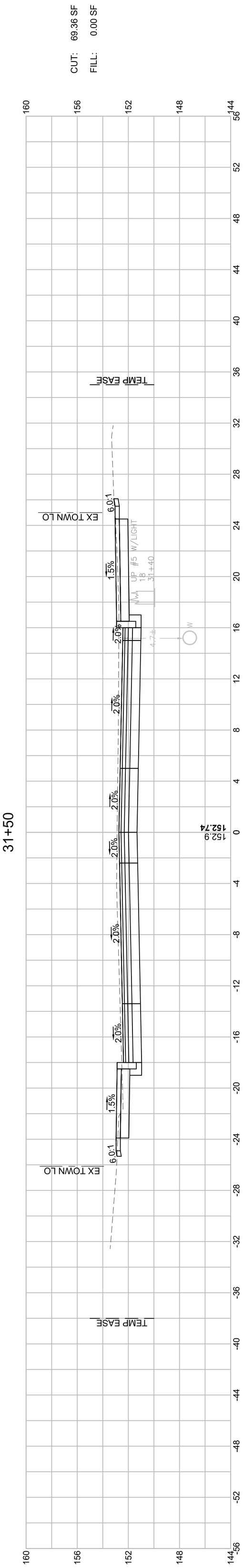
HOR. SCALE IN FEET
VER. SCALE IN FEET

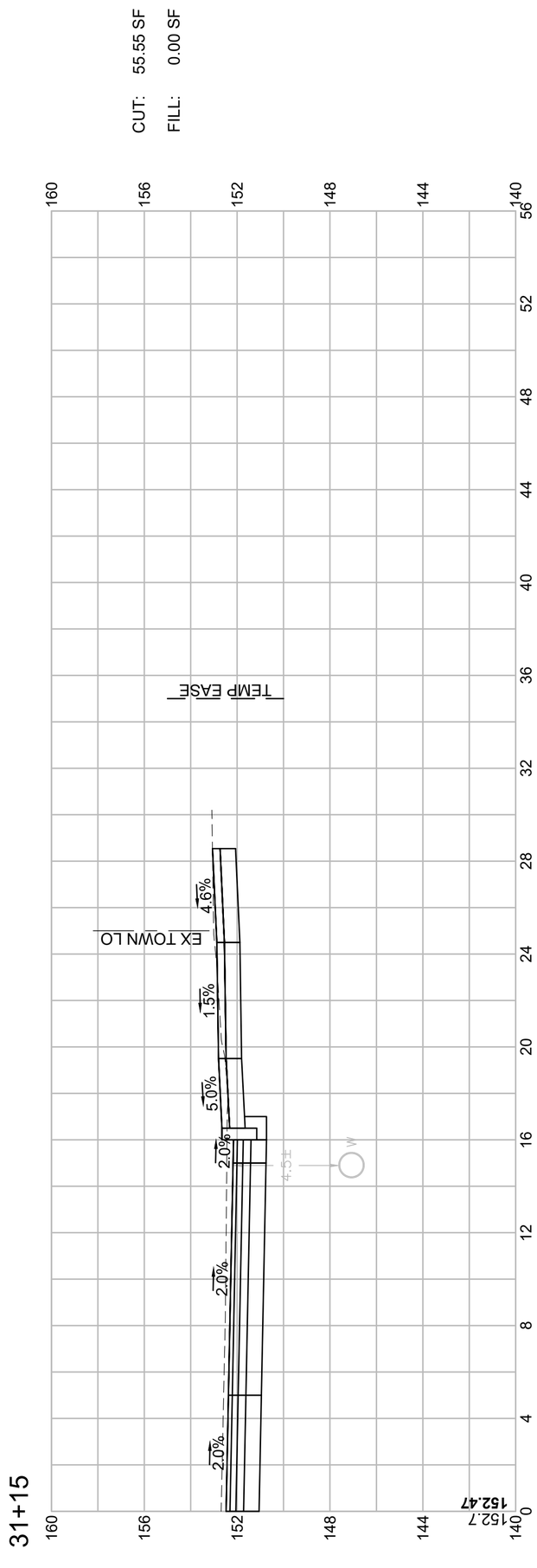
609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:07 AM

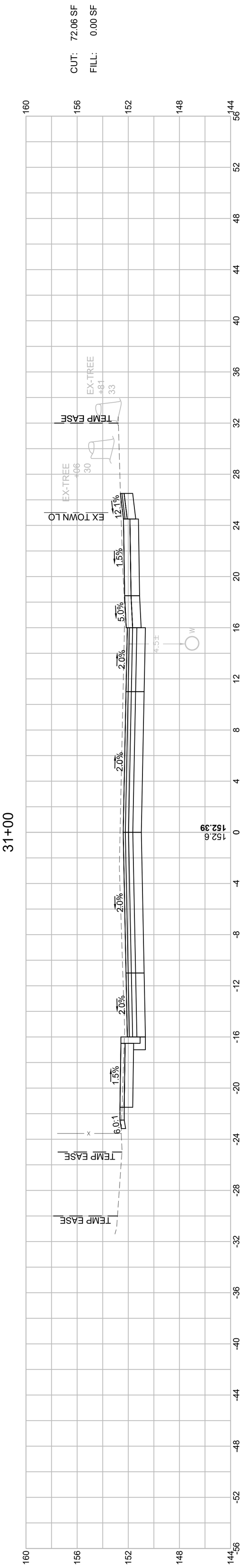
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	67	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS



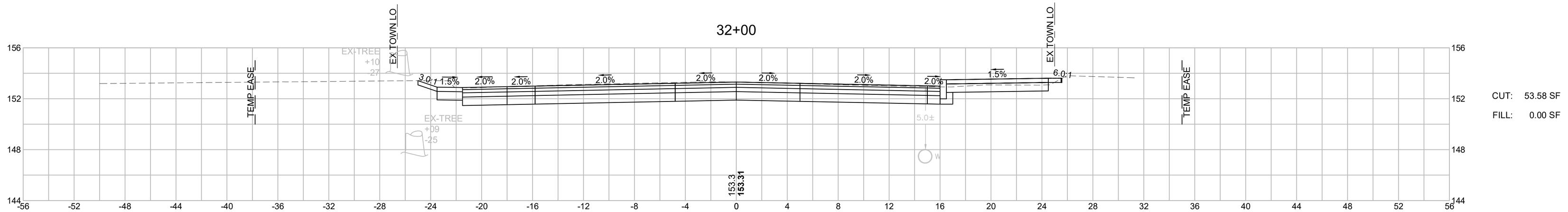




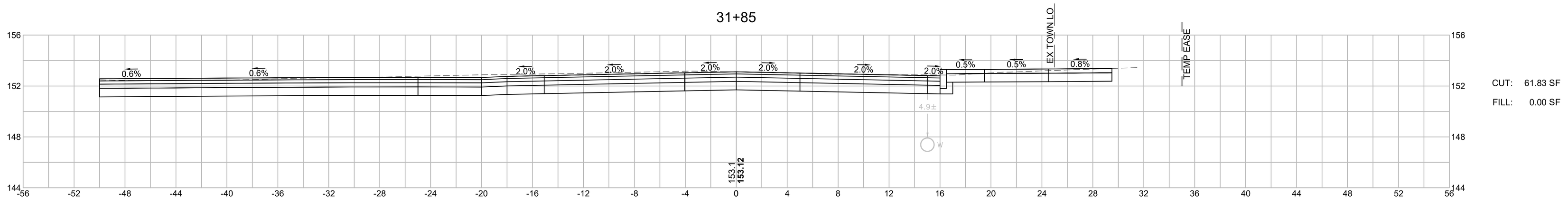
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	68	71
PROJECT FILE NO. 609255			

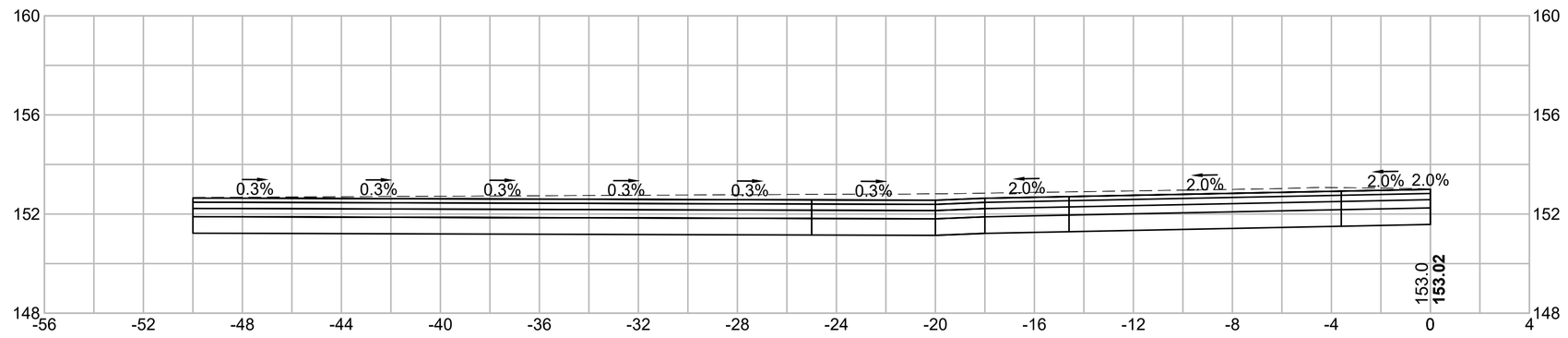
SCHOOL ST CROSS SECTIONS

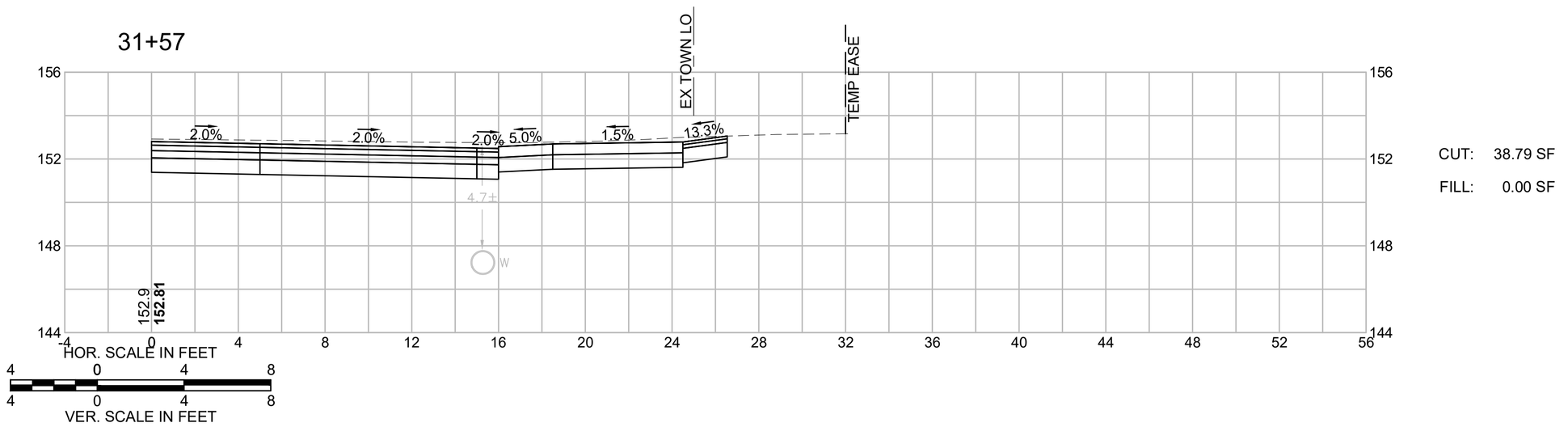


CUT: 53.58 SF
FILL: 0.00 SF



CUT: 61.83 SF
FILL: 0.00 SF





CUT: 38.79 SF
FILL: 0.00 SF

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:07 AM

Proposal No. 609255-130934

A00850-71

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:07 AM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	69	71
PROJECT FILE NO. 609255			

SCHOOL ST CROSS SECTIONS

33+50

CUT: 19.67 SF
FILL: 0.00 SF

33+00

CUT: 22.35 SF
FILL: 0.00 SF

32+50

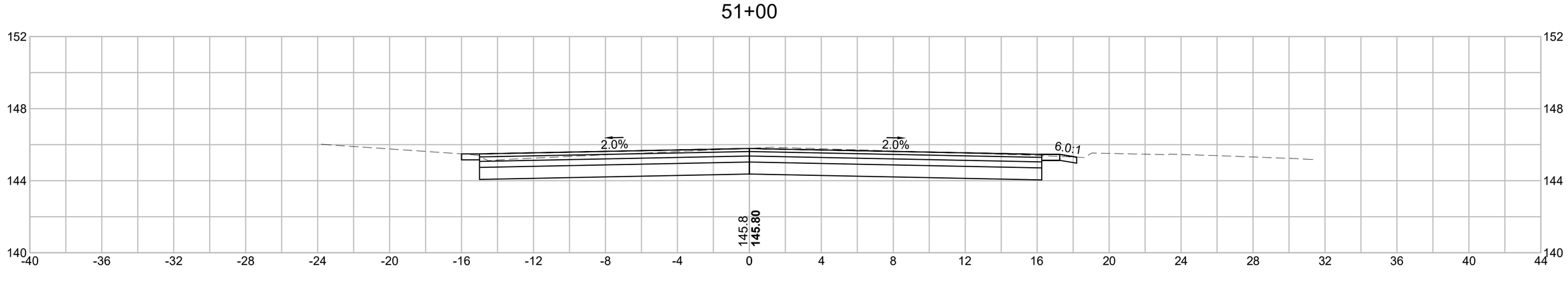
CUT: 24.38 SF
FILL: 0.00 SF

HOR. SCALE IN FEET 0 4 8
VER. SCALE IN FEET 0 4 8

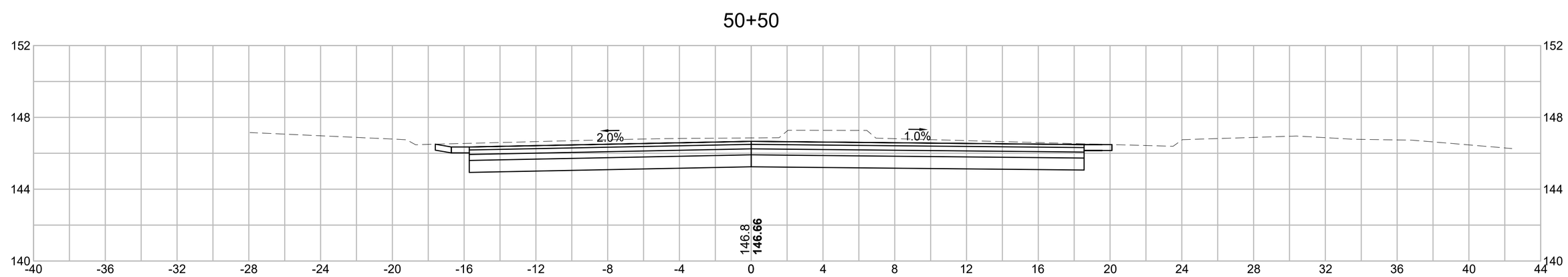
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	70	71
PROJECT FILE NO. 609255			

SPRING ST CROSS SECTIONS



CUT: 50.16 SF
FILL: 0.45 SF



CUT: 66.65 SF
FILL: 0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:07 AM

A00850-73

Proposal No. 609255-130934

609255_HD(XSEC).DWG Plotted on 7-Nov-2023 1:08 AM

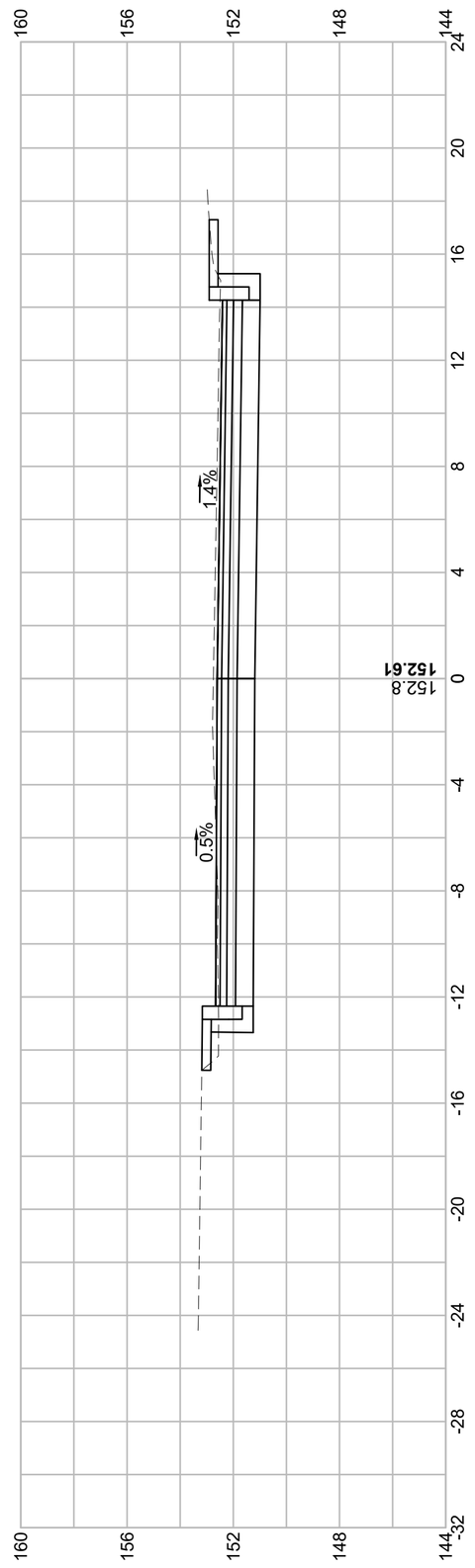
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	71	71
PROJECT FILE NO. 609255			

SIDE STREETS CROSS SECTIONS

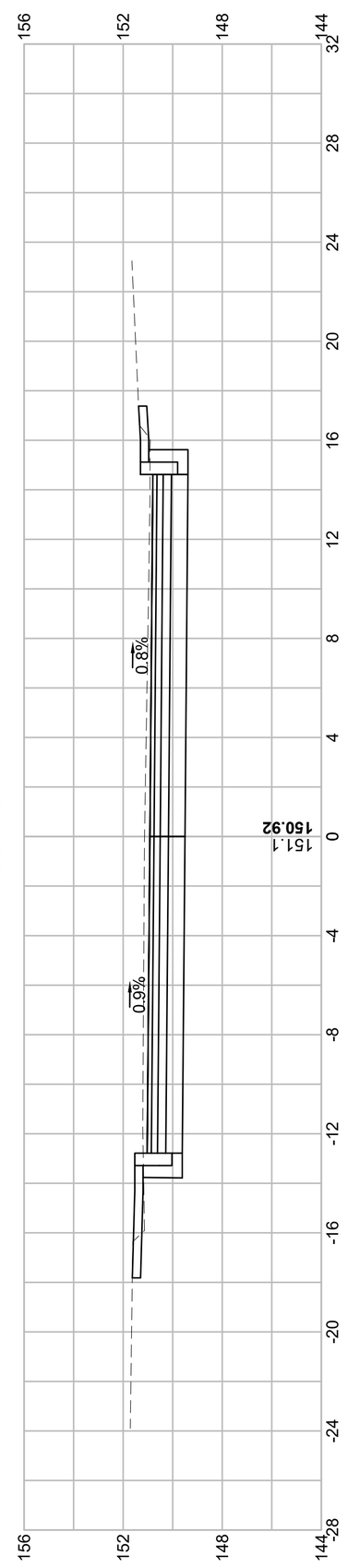
BLISS AVE
79+65

CUT: 42.98 SF
FILL: 0.00 SF



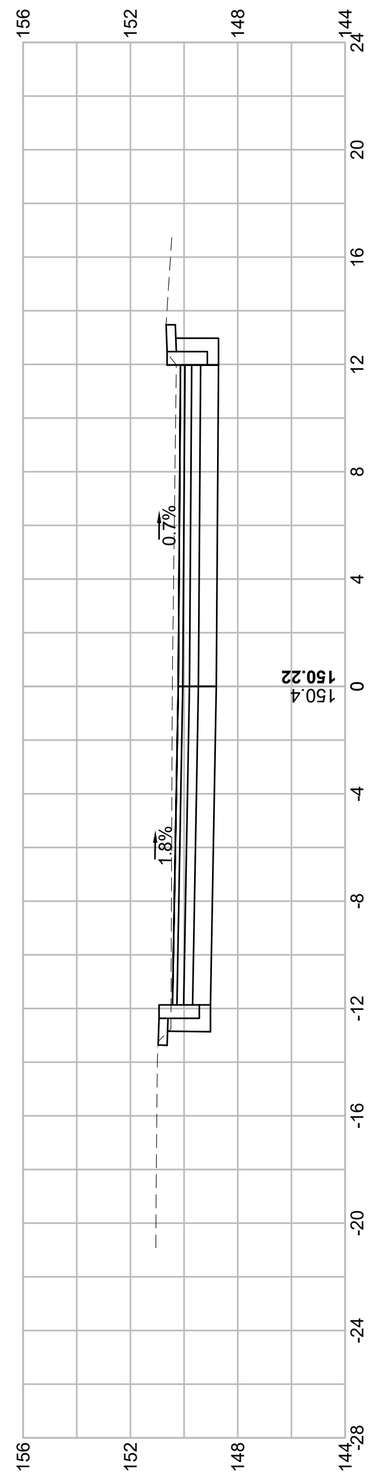
DAY AVE
69+70

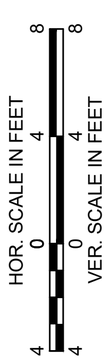
CUT: 47.72 SF
FILL: 0.00 SF



CORAL ST
60+40

CUT: 41.25 SF
FILL: 0.00 SF





DOCUMENT A00851

MASSACHUSETTS WETLANDS PROTECTION ACT

DETERMINATION OF APPLICABILITY

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Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

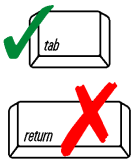
WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

A. General Information

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



From:

Mansfield
Conservation Commission

To: Applicant

JOSHUA REINKE
Name
6 PARK ROW
Mailing Address
Mansfield | MA | 02048
City/Town | State | Zip Code
508-261-7335
Phone Number
jreinke@mansfieldma.com
Email Address

Property Owner (if different from applicant):

Town of Mansfield
Name
Mailing Address
City/Town | State | Zip Code
Phone Number
Email Address (if known)

1. Project Location:

SCHOOL ST FROM SPRING ST TO WEST ST
Street Address
Mansfield
City/Town

[How to find Latitude and Longitude]

42.01886
Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX)
-71.22565
Longitude (Decimal Degrees Format with 5 digits after decimal e.g. -XX.XXXXX)

[and how to convert to decimal degrees]

N/A
Assessors Map/Plat Number
N/A
Parcel/Lot Number

2. Date Request Filed:

4/4/24

B. Determination

Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination.

Project Description (if applicable):

ROADWAY RECONSTRUCTION SCHOOL ST SPRING ST WEST ST

Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

Title	Date
609255_School_Street_03-20-2024	3/20/24
0482024 Special Conditions for DA School St Spring St West St	4/8/24

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

B. Determination (cont.)

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations:

Positive Determination
Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection).

☐ 1. The area described on the referenced plan(s) is an area subject to jurisdiction under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent.

☐ 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid.

☐ 2b. The boundaries of Wetlands Resource Area(s) and Buffer Zone(s) listed below are not confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination.

☐ 3. The work described on referenced plan(s) and document(s) is within an area subject to jurisdiction under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent.

☐ 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to jurisdiction under the Act. Therefore, said work requires the filing of a Notice of Intent

☐ 5. The area and/or work described on referenced plan(s) and document(s) is subject to review and approval by:

Name of Municipality

Pursuant to the following municipal wetland ordinance or bylaw:

Name | Ordinance or Bylaw Citation

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands
WPA Form 2 – Determination of Applicability
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

B. Determination (cont.)

☐ 6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but not subject to the Massachusetts Wetlands Protection Act:

☐ 7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)(c) 2. for more information about the scope of alternatives requirements):

- ☐ Alternatives limited to the lot on which the project is located.
- ☐ Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
- ☐ Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
- ☐ Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.

Negative Determination

Note: No further action under the Wetlands Protection Act is required by the applicant. However, if the Department is requested to issue a Superseding Determination of Applicability, work may not proceed on this project unless the Department fails to act on such request within 35 days of the date the request is post-marked for certified mail or hand delivered to the Department. Work may then proceed at the owner's risk only upon notice to the Department and to the Conservation Commission. Requirements for requests for Superseding Determinations are listed at the end of this document.

☐ 1. The area described in the Request is not an area subject to jurisdiction under the Act or the Buffer Zone.

☐ 2. The work described in the Request is within an area subject to jurisdiction under the Act, but will not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.

■ 3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to jurisdiction under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).

Please see attached Special Conditions Page

☐ 4. The work described in the Request is not within an Area subject to jurisdiction under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent, unless and until said work alters an Area subject to jurisdiction under the Act.

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

B. Determination (cont.)

☐ 5. The area described in the Request is subject to jurisdiction under the Act. Since the work described therein meets the requirements for the following exemption, as specified in the Act and the regulations, no Notice of Intent is required:

Exempt Activity (site applicable statutory/regulatory provisions)

☐ 6. The area and/or work described in the Request is not subject to additional review and approval by:

Name of Municipality

Pursuant to a municipal wetlands' ordinance or bylaw.

Name

Ordinance or Bylaw Citation

C. Authorization

This Determination is issued to the applicant and delivered as follows:

☒ By hand delivery on

4/8/24

Date

☐ By certified mail, return receipt request on

Date

Certified Mail Number

A copy of this Determination has been sent on the same date, considered the date of issuance, **to** the appropriate DEP Regional Office and the property owner (if not the applicant) in the manner as follows:

DEP

☒ By eDEP DOA Submittal Platform (Attach this form and supporting documents)

☐ By USPS mail

Date

☐ By hand delivery

Date

Property Owner (if not applicant)

☐ By mail

Date

☐ By hand delivery

Date

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

C. Authorization (cont.)

This Determination is valid for **three years** from the date of issuance (except Determinations for Vegetation Management Plans which are valid for the duration of the Plan). This Determination does not relieve the applicant from complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

This Determination must be signed by a majority of the Conservation Commission. As noted above, a copy must be sent to the appropriate DEP Regional Office (see https://www.mass.gov/service-details/massdep-regional-offices-by-community) and the property owner (if different from the applicant) on the same date that the Applicant is issued this Determination.

Issuing Authority

Signatures:

Signature	Printed Name
Signature	Printed Name
Signature	Printed Name
Signature	Printed Name
Signature	Printed Name
Signature	Printed Name
Signature	Printed Name

D. Appeals

The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see https://www.mass.gov/service-details/massdep-regional-offices-by-community) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Request for Departmental Action Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

Provided by DEP

A. Request Information

1. Location of Project

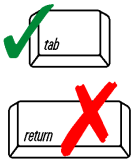
a. Street Address

b. City/Town, Zip

c. Check number

d. Fee amount

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



2. Person or party making request (if appropriate, name the citizen group's representative):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

4. DEP File Number:

B. Instructions

1. When the Departmental action request is for (check one):

☐ Superseding Order of Conditions – Fee: $120 (single family house projects) or $245 (all other projects)

☐ Superseding Determination of Applicability – Fee: $120

☐ Superseding Order of Resource Area Delineation – Fee: $120

Send this form and check or money order, payable to the *Commonwealth of Massachusetts,* to:

Department of Environmental Protection
Box 4062
Boston, MA 02211

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Request for Departmental Action Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

Provided by DEP

B. Instructions (cont.)

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see https://www.mass.gov/service-details/massdep-regional-offices-by-community).

4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Town of Mansfield
6 Park Row, Mansfield, Massachusetts 02048
Conservation

Special Conditions for Negative Determination for Applicability for School Street from Spring Street to West Street., Mansfield, MA under the Mansfield Wetlands Protection Bylaw Chapter 220

Motion: Issue a Negative Determination for Reason #3 (Proposed work will not impact the resource area to MASSDOT/Town of Mansfield/VHB for the roadway reconstruction along School Street from Spring Street to West Street with portions of work within the 100-foot buffer zone of a Bordering Vegetated Wetland and 100-foot buffer of inland bank with the following special conditions

1. **LIMIT OF WORK** All limits of work and erosion controls shall be installed prior to any construction, clearing, or excavation. The erosion controls shall consist of a 8" diameter biodegradable mulch-filled silt sock with wooden stakes every 10 feet on each sides of sock or equivalent (do not pierce silt sock with stakes). In addition to the silt sock, trenched-in silt fence may be required depending on the specific site conditions. See the Conservation Agent (Agent) for specific erosion control design standards. The Applicant shall notify the Agent when any such devices or measures are installed so that a site visit can be conducted prior to the commencement of work.
2. **NOTIFICATION**: Agent must be notified when work is complete
3. **CHANGE IN PLANS:** Any modifications or revisions to the plan(s) referenced in this Order must be submitted to the Commission for review. For single family lots, this Order is for the structures shown on the plan of record only. Any additional structures including, but not limited to, decks, patios, sheds, pools, walkways and/or any hardscape features must be reviewed by the Commission. If, after their review, the Commission finds that the changes are not significant enough (minor modifications) to warrant an Amended Order or new Notice of Intent, then the revised plans shall be considered the new plan of record. If the changes are significant enough to warrant an Amended Order or new Notice of Intent, then the applicant is required to file accordingly.

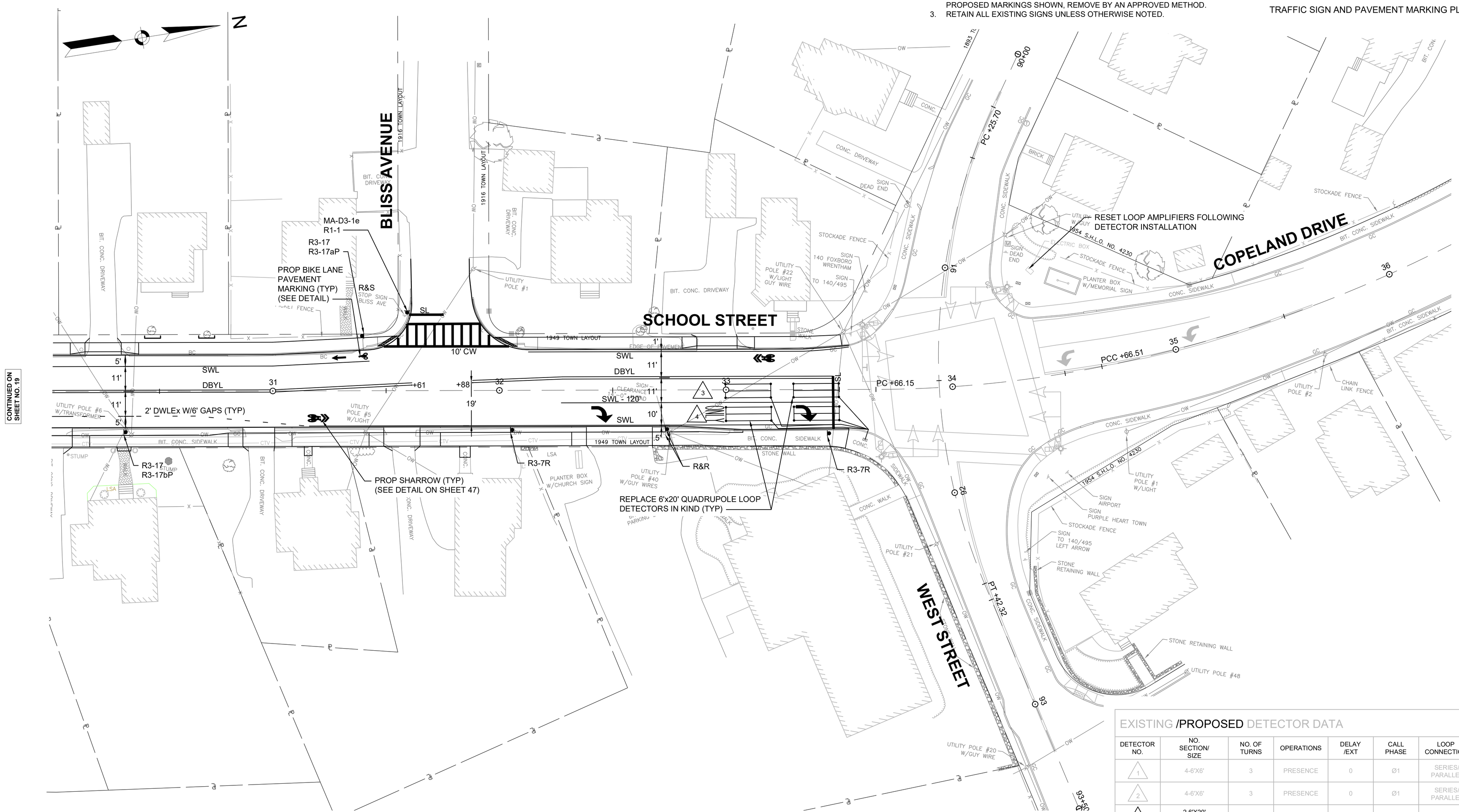
MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	25	71
PROJECT FILE NO. 609255			

TRAFFIC SIGN AND PAVEMENT MARKING PLANS

CONSTRUCTION NOTES

1. ALL PAVEMENT MARKING SYMBOLS AND LEGENDS SHALL BE REFLECTORIZED THERMOPLASTIC EXCEPT BIKE LANE ARROW, RIDER SYMBOLS AND SHARROWS, WHICH SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC.
2. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.



0 20 50 100

SCALE: 1" = 20'

EXISTING /PROPOSED DETECTOR DATA

DETECTOR NO.	NO. SECTION/ SIZE	NO. OF TURNS	OPERATIONS	DELAY /EXT	CALL PHASE	LOOP CONNECTION
1	4-6'X6'	3	PRESENCE	0	Ø1	SERIES/ PARALLEL
2	4-6'X6'	3	PRESENCE	0	Ø1	SERIES/ PARALLEL
3	2-6'X20' QUADRUPOLE	2-4-2	PRESENCE	0	Ø2	SERIES
4	2-6'X20' QUADRUPOLE	2-4-2	PRESENCE	0	Ø2	SERIES
5	4-6'X6'	3	PRESENCE	0	Ø4	SERIES/ PARALLEL

NOTE: DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY

609255_HD(TRF).DWG Plotted on 20-Mar-2024 2:15 PM
Proposal No. 609255-130934
A0(ORS1 - 11

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DOCUMENT A00855

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

NO EFFECT CONSISTENCY 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 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To: December 20, 2023
Project code: 2024-0028720
Project Name: 609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET

Subject: Consistency letter for the '609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated December 20, 2023 to verify that the **609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action will have no effect on the endangered Indiana bat (*Myotis sodalis*) or the endangered northern long-eared bat (*Myotis septentrionalis*). If the Proposed Action is not modified, **no consultation is required for these two species.** If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or northern long-eared bat in a manner or to an extent not considered in the PBO, 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 bats and/or NLEBs use or occupancy, yet later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental

take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

If the Proposed Action 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 Office is required. If the proposed action 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 accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET

DESCRIPTION

609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET

Work on this project includes roadway improvements on School Street from Spring Street to West Street (approximately 2100'). Shoulders will be constructed to accommodate bicycles and sidewalks will be included to accommodate all users. Bituminous berm will line most of the roadway and the sidewalk will be separated from the roadway by a 3' grass strip. The School Street and Spring Street intersection will be tightened up by reducing the pavement area which will slow down traffic. Willow Street will tee into Spring Street providing more separation between School Street and Willow Street. Drainage, signage and striping will be incorporated throughout the project.

Monarch Butterfly: Candidate Species only, no conservation measures at this time.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.02003165,-71.22491446016446,14z



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the endangered Indiana bat and/or the endangered northern long-eared bat. Therefore, no 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 for these two species.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat[1]?

   [1] See Indiana bat species profile

   Automatically answered
   No

2. Is the project within the range of the northern long-eared bat[1]?

   [1] See northern long-eared bat species profile

   Automatically answered
   Yes

3. [Semantic] Does your proposed action intersect an area where Indiana bats and northern long-eared bats are not likely to occur?

   Automatically answered
   Yes

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on October 30, 2023. 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) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Massachusetts Department of Transportation
Name: Trevor Burns
Address: 10 Park Plaza
City: Boston
State: MA
Zip: 02116
Email trevor.b.burns@dot.state.ma.us
Phone: 8573010759

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

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DOCUMENT A00856

Northern Long-Eared Bat Presence/Probable Absence Acoustic Survey Report

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TETRA TECH

November 6, 2023

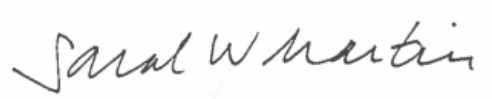
Dave Paulson
Wildlife and Endangered Species Program Supervisor
Massachusetts Department of Transportation – Highway Division
Ten Park Plaza, Room 7360
Boston, MA 02116-3973
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(857) 262-3378

Project	Northern Long-eared Bat (NLEB) Presence/Probable Absence Acoustic Survey		
MassDOT Project #	608053	609255	613052
MassDOT Project Title	Intersection & Signal Improvements at SR 140 (Commercial St) & SR 106 (Chauncey St)	Multimodal Accommodation on School St from Spring St to West St	Corridor Improvements on Chauncy St (SR 106) from SR 140 to Copeland Dr
Town	Mansfield		
Surveyor Name/Firm	Nicholas Boulanger / Tetra Tech Inc.		
Detector Operation Dates	June 14-19, 2023		
Acoustic Survey Results	**NLEB NOT DETECTED**		
Acoustic Survey Results	**MYLE NOT DETECTED**		
Acoustic Survey Results	**MYLU NOT DETECTED**		
Acoustic Survey Results	**PESU NOT DETECTED**		

Dear Mr. Paulson,

This report contains the results of the Massachusetts Department of Transportation (MassDOT) northern long-eared bat (*Myotis septentrionalis*, hereafter NLEB) summer presence/probable absence survey performed for the MassDOT Project #608053 Intersection & Signal Improvements at State Route 140 (Commercial Street) and State Route 106 (Chauncey Street), Project #609255 Multimodal Accommodation on School Street from Spring Street to West Street, and Project #613052 Corridor Improvements on Chauncy Street (State Route 106) from State Route 140 to Copeland Drive in Mansfield, Massachusetts. Acoustic detectors deployed by Tetra Tech did not detect the presence of NLEB. No bat passes were initially classified as the federally threatened NLEB by analysis software. One (1) bat pass was initially classified as the state endangered little brown bat (*Myotis lucifugus*), but zero (0) bat passes were confirmed as such during our qualitative assessment. No bat passes were initially classified as the state endangered eastern small-footed bat (*Myotis leibii*) or the state endangered tricolored bat (*Perimyotis subflavus*).

Sincerely,



Sarah Watts Martin
Tetra Tech, Inc.

Attachments: Northern Long-Eared Bat Presence/Probable Absence Acoustic Survey Report, Mansfield Projects: Intersection & Signal Improvements on SR 140, Multimodal Accommodation on School Street, and Corridor Improvements on Chauncy Street, MassDOT Project Nos. 608053, 609255, 613052

Northern Long-Eared Bat Presence/Probable Absence Acoustic Survey Report

Mansfield Projects: Intersection & Signal Improvements on SR 140, Multimodal Accommodation on School Street, and Corridor Improvements on Chauncy Street

MassDOT Project Nos. 608053, 609255, 613052

Prepared for:

Massachusetts Department of Transportation
Highway Division
Ten Park Plaza, Room 7360
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Prepared by:

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November 2023

EXECUTIVE SUMMARY

This report conveys results of the survey assessing presence/probable absence for the northern long-eared bat (*Myotis septentrionalis*, NLEB) during the summer for Massachusetts Department of Transportation (MassDOT) Mansfield Projects: Intersection & Signal Improvements on SR 140, Multimodal Accommodation on School Street, and Corridor Improvements On Chauncy Street (MassDOT Project Nos. 608053, 609255, 613052), all located in Mansfield, Massachusetts (Project). Tetra Tech, Inc. (Tetra Tech) deployed five acoustic detectors that did not detect the presence of NLEB. The analysis software identified no bat passes as NLEB, and manual vetting of bat passes did not indicate presence of the NLEB. Tetra Tech reviewed a subsample of other *Myotis* calls (i.e., little brown bat [*Myotis lucifugus*]) to further verify detection of NLEB. The survey confirmed presence of four species at the Project: big brown bat (*Eptesicus fuscus*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), and silver-haired bat (*Lasionycteris noctivagans*).

This report summarizes the methods and result of the acoustic survey. Appendix A includes an aerial map of the Project and detector location along with photographs illustrating site conditions and microphone orientation. Appendix B includes copies of the completed Phase 1 Summer Habitat Assessment form(s) for the Project. Appendix C is a summary of Maximum Likelihood Estimates (MLE), and Appendix D includes resumes for relevant staff members involved with the Project.

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1.0 Project Description

This report conveys results of the survey assessing presence/probable absence for northern long-eared bat (*Myotis septentrionalis*, NLEB) during the summer for Massachusetts Department of Transportation (MassDOT) Mansfield Projects: Intersection & Signal Improvements on SR 140, Multimodal Accommodation on School Street, and Corridor Improvements on Chauncy Street (MassDOT Project Nos. 608053, 609255, 613052), all located in Mansfield, Massachusetts. (Project; Figure 1). The linear area affected is 2.98 miles. The three Projects are sited on suburban roads that run through a mixture of moderate density residential and commercial development interspersed with small blocks of mixed forest. Public lands near the Project area include several town-owned conservation areas to the south and east, Wrentham and F. Gilbert Hills State Forests to the west and north. There are also parcels within 3 miles of the Project that are protected municipal water supply, lands in conservation restriction, or owned and managed by a land trust. Open waterbodies nearby include Kingman Pond and Fulton Pond, through which the Rumford River flows.

The linear suitable habitat for NLEB includes an overpass on State Route 140 that crosses over an active railroad right-of-way. This bridge was not accessible; however, MassDOT is not proposing to conduct work on this bridge as part of any of the Project. The roadway work will not affect the State Route 140 bridge over the railroad right-of-way.

2.0 Methods

The survey to assess NLEB summer presence/probable absence at the Project accorded with the 2023 U.S. Fish and Wildlife Service (USFWS) *Range-wide Indiana Bat Summer Survey Guidelines for Indiana Bat and Northern Long-eared Bat* (Guidelines) (USFWS 2023). This survey followed a two-phased approach: Phase 1 included the desktop and field-based habitat assessments, and Phase 2 included the acoustic survey. Tetra Tech deployed a full-spectrum acoustic detector during Phase 2, and the resulting data were processed by use of Kaleidoscope Pro version 5.4.0 (Wildlife Acoustics, Inc.). Qualified Tetra Tech personnel conducted all phases of the survey. Specific roles are summarized in Table 1, and resumes of relevant staff are provided in Appendix D.

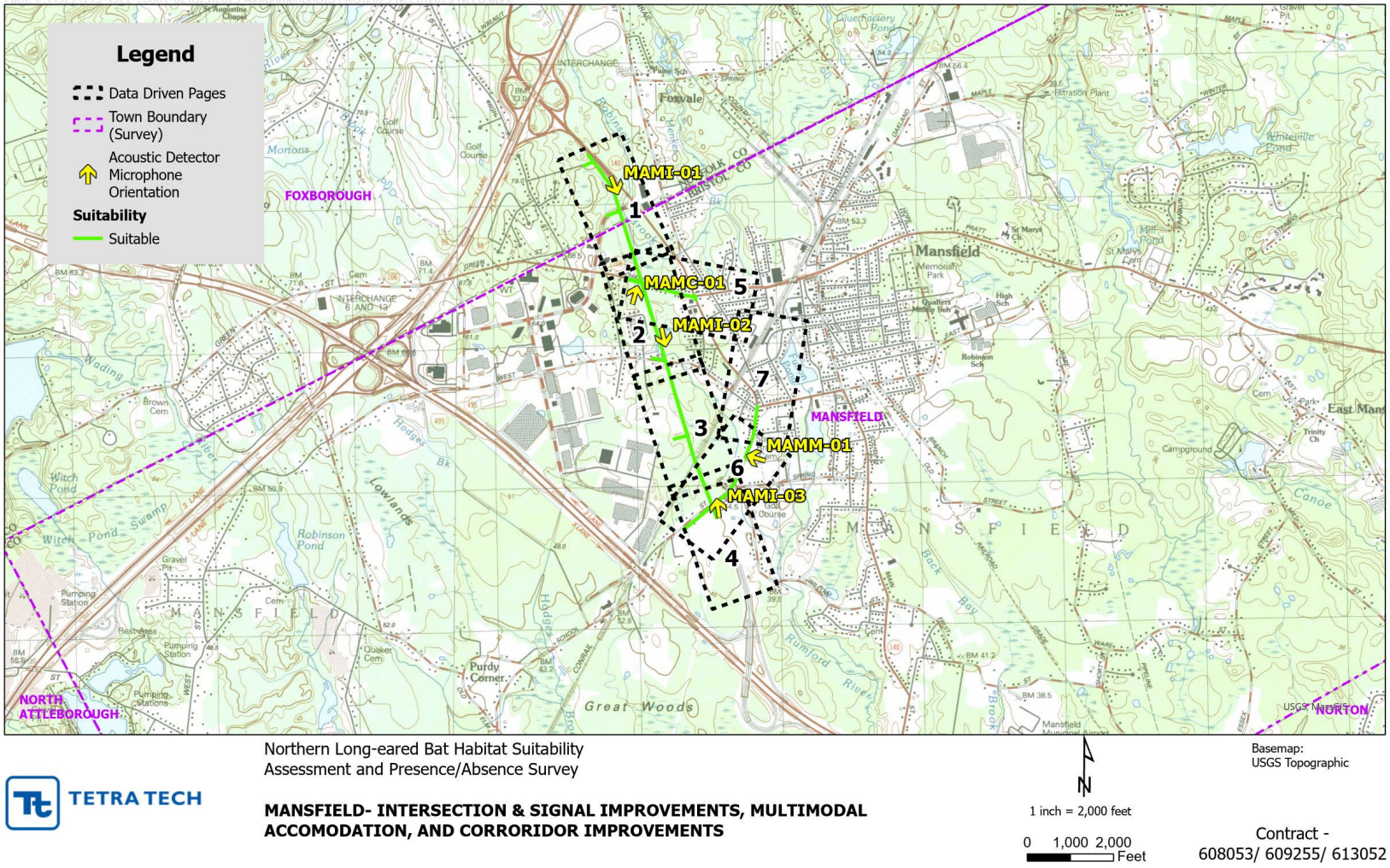


Figure 1. Location of the acoustic detector deployed at Mansfield Projects, MassDOT Project Nos. 608053, 609255, and 613052 (June 2023)

Table 1. Survey personnel, NLEB acoustic presence/probable absence survey, Mansfield Projects, MassDOT Project #608053, 609255, and 613052 (June 2023)

Personnel	Desktop Analysis	Field Assessment	Detector Deployment	Acoustic Analysis	Qualitative Analysis
Nicholas Boulanger Wildlife Biologist	X	X	X		
Ken Deshais Senior Project Scientist		X			
Kinsale McGrath Environmental Scientist		X			
Baxter Seguin Wildlife Biologist				X	X

2.1 Habitat Assessment

The following sections describe the desktop and field-based habitat assessments of summer presence of the NLEB at the Project.

2.1.1 Desktop Assessment

Prior to field work, Tetra Tech performed a desktop land cover analysis to identify suitable NLEB habitat within the proposed Project area (Figure 1). Tetra Tech reviewed aerial photography and Google Earth imagery to identify areas of possible use by the NLEB for foraging and roosting during the maternity and migration seasons. Determination of these areas was based on forest patch size, proximity to closed-canopy forests, and landscape features that bats may use to commute between roosting and foraging habitats (e.g., forested tracts, wetlands, and streams). All relatively contiguous forested lands that were not highly fragmented by residential or commercial developments were considered suitable NLEB habitat, and all densely populated or developed stretches were determined to be unsuitable (USFWS 2023) (see Figure 1 and Figures in Appendix A).

The Guidelines indicate requirement for linear projects of a minimum of one detector per kilometer of suitable habitat for four detector-nights (USFWS 2023). Therefore, five detector stations were necessary for this linear project with 4.8 kilometers (2.98 miles) of suitable habitat.

2.1.2 Field-based Assessment

On June 14, 2023, Tetra Tech conducted a site visit to describe and verify presence of NLEB habitat identified during the desktop analysis, deploy five full-spectrum acoustic detectors, and conduct a Phase 1 Summer Habitat Assessment. A general habitat description for each detector is provided in Table 2. The completed Phase 1 Summer Habitat Assessment is included in Appendix B.

Table 2. Detector station descriptions, Mansfield Projects, MassDOT Project Nos. 608053, 609255, and 613052 (June 2023)

Detector Station	Suitable NLEB Habitat	Description	GPS Coordinates	Microphone Orientation (degrees)	Survey Nights
MAMI-01	Yes	Detector placed with microphone facing southeast on the side of a highway bordered by small forest patches.	42.0369316 -71.2358233	158	6/14–6/19, 2023
MAMI-02	Yes	Detector placed in a grassy strip alongside a highway, next to a wooded area. There is a small stream in the woods parallel to the road.	42.0272683 -71.23165	167	6/15–6/19, 2023
MAMI-03	Yes	Detector placed with microphone facing north at the edge of a highway along a powerline corridor and station is bordered by forest.	42.0177166 -71.22723	352	6/14–6/19, 2023
MAMM-01	Yes	Detector placed with microphone facing northwest adjacent to a road by a cemetery in a residential area where vegetation is predominately maintained lawn with mature trees. Wind monitor deployed at this detector station.	42.0204616 -71.22474	287	6/14–6/19, 2023
MAMC-01	Yes	Detector is placed on a road intersection with a small, wooded area surrounded by commercial development.	42.031215 -71.2340883	16	6/14–6/19, 2023

2.2 Acoustic Survey

The following sections discuss the various aspects of the acoustic surveys.

2.2.1 Detector Type

Tetra Tech used a Wildlife Acoustics Song Meter-4 BAT ultrasonic bat detector (Wildlife Acoustics, Inc., Massachusetts, USA) equipped with a SMM-U2 microphone over the duration of the survey. The detectors were set to record from an hour before sunset to an hour after sunrise (approximately 7:30 PM–6:11 AM) in full-spectrum mode, and files were saved in .WAV format on internal SD cards. The detectors were fully waterproof and powered by internal D cell batteries. Tetra Tech tested the detectors and microphones prior to deployment using a Wildlife Acoustics Ultrasonic Calibrator to confirm equipment was functioning properly and that each devices sensitivity was within the manufacturer's suggested thresholds. A "chirp test" with the Ultrasonic Calibrator confirmed that all connections were sound, and the microphones registered high-frequency noise once the detectors were set. Tetra Tech performed this test again at demobilization to ensure the microphones were functioning while deployed. Tetra Tech reviewed log files when the unit was recovered to verify proper functioning over the duration of the survey.

2.2.2 Detector Deployment

Tetra Tech micro-sited the 5 detectors in suitable habitat within the Project area to facilitate sampling of potential habitats in accordance with the Guidelines. The detectors were deployed on June 14, 2023 and retrieved on June 20, 2023.

The microphone was mounted at a minimum height of 9 feet above ground to avoid ground vegetation and elevate the cone of detection. Orientation of the microphone was along suspected flight paths to increase the number of call pulses and quality of recordings. Therefore, microsite conditions determined specific orientation. Appendix A includes station conditions and photographs.

2.2.3 Weather Requirements

For valid survey results, the Guidelines specify weather requirements during the first 5 hours after sunset of each detector-night as follows: temperatures remain above 50 degrees Fahrenheit, no precipitation exceeds 30 minutes, and sustained wind speed is less than 9 miles/hour. Tetra Tech reviewed hourly weather history from the weather station closest to the Project that provide data on temperature, precipitation rate, and precipitation accumulation (Weather Underground 2023). A RainWise® WindLog™ Wind Data Logger was set up at the Project, and wind speed was collected every 2 minutes and viewed in Windsoft software to determine if the weather guidelines were met.

2.2.4 Acoustic Analysis

Tetra Tech analyzed the recorded data according to the Guidelines. Data were filtered and analyzed via Kaleidoscope Pro version 5.4.0, by use of the classifier "Bats of North America 5.4.0" for species of bats in Massachusetts at the 0 Balanced "Neutral" sensitivity level. Signals of interest ranged from 16–120 kilohertz, lasting 2–500 milliseconds, with a minimum of two call pulses. Conversions of full-spectrum .WAV files to zero-crossing proceeded by use of a division ratio of eight. Tetra Tech subsequently used SonoBat v 4.2.0 to manually review all files auto-classified as NLEB, eastern small-footed bat (*Myotis leibii*), little brown bat (*Myotis lucifugus*), and tricolored bat (*Perimyotis subflavus*). Eastern small-footed bats, little brown bats and tricolored bats were included in qualitative analysis because of their protected status under the Massachusetts Endangered Species Act. All high-frequency bat passes were reviewed during any night with a significant NLEB MLE value. Indiana bat is listed as endangered at both the federal and state levels. However, the species has not been documented in Massachusetts since 1939 (MassWildlife 2019a), and Massachusetts is not within the putative range for the species (USFWS 2023). Therefore, Indiana bat presence is very unlikely, and the species was not included as a potential species in the analysis.

Tetra Tech manually reviewed a subsample of files auto-classified as big brown bat (*Eptesicus fuscus*), eastern red bat (*Lasiurus borealis*), silver-haired bat (*Lasionycteris noctivagans*), and hoary bat (*Lasiurus cinereus*) to confirm presence of species. Bat passes auto-classified as "No ID" indicated that the program recognized the recording as a bat but could not identify it to the species level. These "No ID" auto-classifications were filtered by characteristic frequency (Fc), and those with an Fc greater than or equal to 35 kilohertz were labeled "unidentified high frequency bat species" and those less than 35 kilohertz were labeled "unidentified low frequency bat species." Results were summarized by station and by night.

3.0 Results

3.1 Habitat Assessment

The desktop and field-based habitat assessments revealed approximately 4.8 kilometers of suitable NLEB habitat. In the Project area, tree removal will occur on the edges of relatively small blocks of mixed forest that occur within commercial and residential development. Canopy closure was low (0-10%) at all of the sites with some midstory height (20-50 feet) cover ranging from 10-40%. Several wetlands located within the vicinity of the Project with minimal trees surrounding them. Robinson Brook crosses within the vicinity of the Project connecting to a wetland, this stream was open to bats with minimal trees on its edges.

3.2 Acoustic Survey

Based on the results of the habitat assessment, Tetra Tech deployed 5 detectors from June 14 through June 19, 2023. Detectors operated for 30 detector-nights. Weather conditions were met during 4 nights of the survey (Table 3) resulting in 20 qualifying nights.

Table 3. Summary of weather information during the first 5 hours of each survey night, Mansfield Projects, MassDOT Project Nos. 608053, 609255, and 613052 (June 2023)

Survey Night	Temperature Range (°Fahrenheit)	Wind Range (mph)	Precipitation (inches)	Qualifying Night
6/14/2023	59–64	0–5	0	Yes
6/15/2023	59–70	0–2	0	Yes
6/16/2023	60–69	0–4	0	Yes
6/17/2023	57–59	0–7	**0.3**	**No**
6/18/2023	59–68	0–5	**0.4**	**No**
6/19/2023	53–62	0–3	0	Yes

Interpreting results solely according to the number of species' bat passes by software auto-classification can be misleading because of varying levels of confidence in the classifications. Therefore, MLEs were applied as a secondary measure to determine likelihood of species presence by incorporation of known error rates for each species classifier within the software. Of the eight bat species that currently occur in Massachusetts, MLEs indicated the likely presence of five species in the Project area, i.e., big brown bat, eastern red bat, hoary bat, silver-haired bat, and little brown bat (Table 4).

Table 4. Summary of species presence by Kaleidoscope Pro and manual vetting, Mansfield Projects, MassDOT Project Nos. 608053, 609255, and 613052 (June 2023)

Species	MLE Prediction[1]	Qualitative Analysis	Overall Evaluation
Big brown bat	**Present**	**Present**	**Present**
Eastern red bat	**Present**	**Present**	**Present**
Hoary bat	**Present**	**Present**	**Present**
Silver-haired bat	**Present**	**Present**	**Present**

Species	MLE Prediction[1]	Qualitative Analysis	Overall Evaluation
Eastern Small-footed bat	Absent	Absent	Absent
Little brown bat	**Present**	Absent	Absent
Northern long-eared bat	Absent	Absent	Absent
Indiana bat	Absent	Absent	Absent
Tricolored bat	Absent	Absent	Absent
1. Based on probability of presence for any site on any night. See Appendix C for complete listing of MLEs by site/night.			

Manual review of bat passes by experienced biologists usually is the most accurate method of species identification. Manual review confirmed the presence of four of the species predicted, NLEB was not confirmed during auto-classification or manual vetting (Table 4).

Collectively, the detectors recorded 1,762 bat passes on the nights from June 14 through June 19, 2023 (Table 5). The detectors were functional over the duration of deployment, except at Station MAMI-02 where the detector did not operate on June 14 or June 17, resulting in 28 detector nights. Kaleidoscope Pro analysis software classified no bat passes as NLEB or eastern small-footed bat. Kaleidoscope Pro analysis software classified 4 passes as tricolored bat and 15 bat passes as little brown bat. Manual vetting did not confirm the presence of NLEB, eastern small-footed bat, tricolored bat, or little brown bat. All other species listed in Table 4 were subsampled to confirm species presence.

Based on this survey, four species were confirmed present at the Project, with 38 percent of the activity from hoary bat followed by big brown bat at 18 percent, silver-haired at 15 percent, and eastern red bat at 8 percent (Table 5).

Table 5. Summary of bat passes recorded at Mansfield Projects, MassDOT Project Nos. 608053, 609255, and 613052 (June 2023)

Station	Date	Big brown bat	Eastern red bat	Hoary bat	Silver-haired bat	NLEB	Tricolored bat	Unid. high-frequency bat	Unid low-frequency bat	Grand Total
MAMI-01	**Station Total**	**71**	**70**	**346**	**65**	**0**	**0**	**1**	**86**	**639**
	6/14/2023	1	9						2	12
	6/15/2023	36	24	152	32				38	282
	6/16/2023	16	17	148	21				19	221
	6/17/2023	2								2
	6/18/2023	11	7	34	7			1	19	79
	6/19/2023	5	13	12	5				8	43
MAMI-02	**Station Total**	**31**	**9**	**86**	**73**	**0**	**0**	**3**	**33**	**235**
	6/14/2023									0
	6/15/2023	7	3	37	27				9	83
	6/16/2023	6	2	32	25			2	13	80
	6/17/2023									0
	6/18/2023	11	3	9	14				6	43
	6/19/2023	7	1	8	7			1	5	29
MAMI-03	**Station Total**	**72**	**6**		**3**	**0**	**0**		**5**	**86**
	6/14/2023	15								15
	6/15/2023	23	3						2	28
	6/16/2023	26	3		3				3	35
	6/17/2023	1								1
	6/18/2023	1								1
	6/19/2023	6								6
MAMM-01	**Station Total**	**86**	**34**	**67**	**64**	**0**	**0**	**72**	**73**	**396**
	6/14/2023	13	6	7	12			10	9	57
	6/15/2023	12	11	30	21			11	17	102
	6/16/2023	36	6	15	23			17	38	135
	6/17/2023	6	5	1				3	1	16
	6/18/2023	15	5	10	7			18	3	58

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Proposal No. 609255-130934

Station	Date	Big brown bat	Eastern red bat	Hoary bat	Silver-haired bat	NLEB	Tricolored bat	Unid. high-frequency bat	Unid low-frequency bat	Grand Total
	6/19/2023	4	1	4	1			13	5	28
MAMC-01	**Station Total**	**54**	**19**	**172**	**52**	**0**	**0**	**37**	**72**	**406**
	6/14/2023	18	3	20	8			1	16	66
	6/15/2023	7	3	42	14			10	16	92
	6/16/2023	9	5	50	11			9	17	101
	6/17/2023			1						1
	6/18/2023	9	5	24	9			9	7	63
	6/19/2023	11	3	35	10			8	16	83
Grand Total		**314**	**138**	**671**	**257**	**0**	**0**	**113**	**269**	**1762**

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Proposal No. 609255-130934

4.0 Conclusion

Kaleidoscope Pro software did not determine any bat passes to be those of NLEB, and manual vetting of *Myotis* calls did not determine these bat passes to be those of NLEB. Given there were no acoustic detections of NLEBs during this survey that conformed to the summer survey protocol (Guidelines), activities associated with the Project are unlikely to negatively impact the NLEB. There are two records of NLEB hibernacula located more than 18 miles north of the Project (MassWildlife 2019b). The nearest known roost tree records are more than 42 miles southeast of the Project (MassWildlife 2019b). Avoiding tree removal activities when bats are active will minimize direct effects to this and other bat species.

Presence was not confirmed for the state endangered little brown bat, tricolored bat, or eastern small-footed bat. Tricolored bat and little brown bat have both experienced significant regional population declines due to white-nose syndrome (Frick et al. 2010; USFWS 2021). The Massachusetts Division of Fisheries and Wildlife (MassWildlife) recommends protection of all hibernacula (MassWildlife 2015, 2019a, c, d). Under the Massachusetts Endangered Species Act, all listed species are protected from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Listed species are specifically protected from activities that disrupt breeding, feeding, or migration (M.G.L c.131A; 321 CMR 10.00).

The limited amount of clearing planned is expected to have little effect on suitable habitat. Retaining a forested buffer around ponds, wetlands and riparian corridors is recommended bats often forage over water in forested habitat (Broders et al. 2001, Krusic et al. 1996, Nelson and Gillam 2016). Retaining habitat for listed bat species may allow them to use the Project area in the future.

Four species were detected at the Project during the acoustic survey, with 38 percent of the activity from hoary bat, a migratory tree bat, followed by big brown bat with 18 percent of recorded bat passes (Table 5).

The detector stations were located on roadsides with suitable habitat nearby, predominately in the form of small forest patches. The Project's bat activity rate was relatively low (on average 61 bat passes per night).

5.0 References

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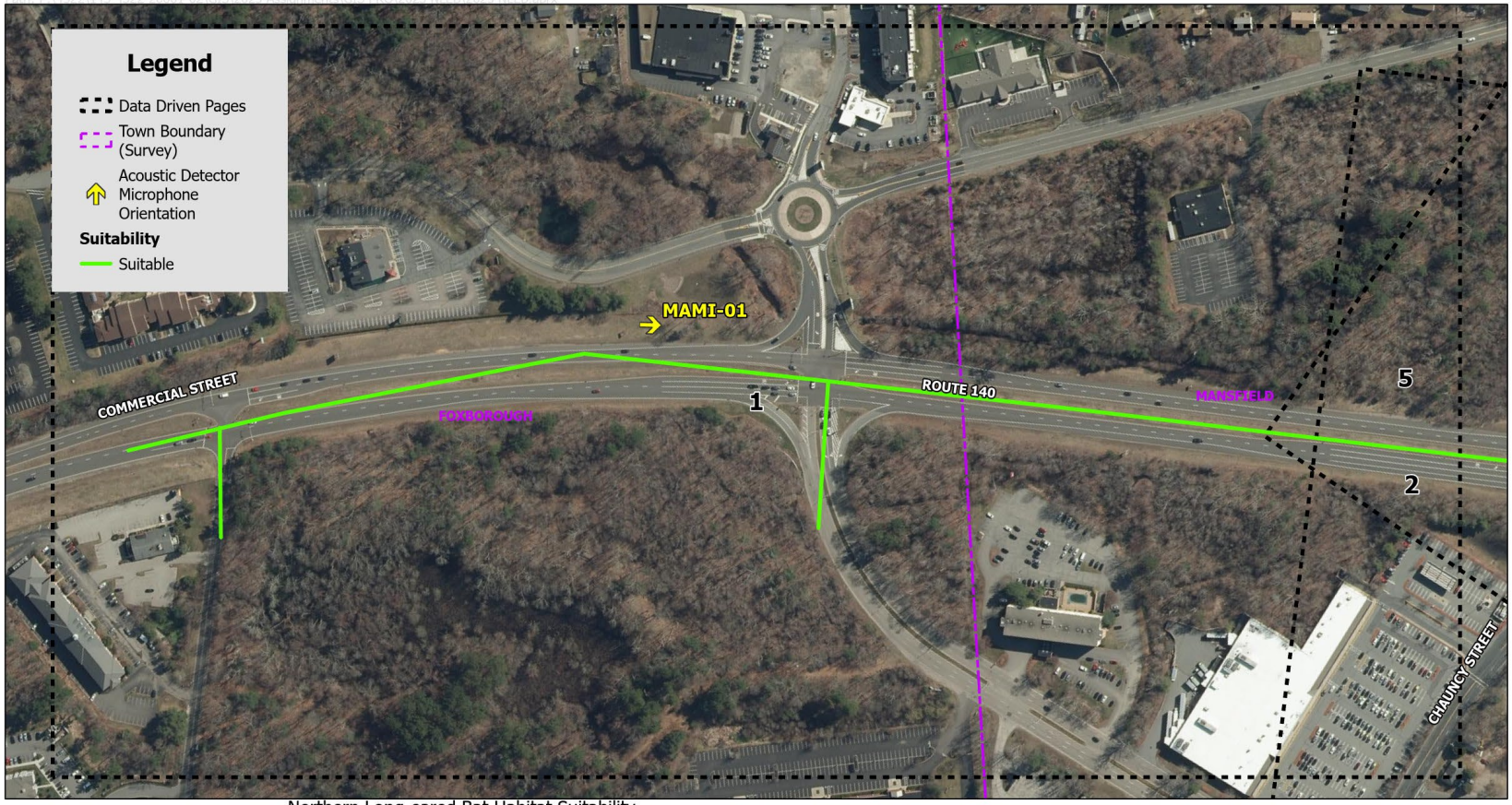
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APPENDIX A: DETECTOR STATION MAP AND PHOTOGRAPHS OF DETECTOR AND SITE DESCRIPTION

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Northern Long-eared Bat Habitat Suitability Assessment and Presence/Absence Survey

TETRA TECH

MANSFIELD- INTERSECTION & SIGNAL IMPROVEMENTS, MULTIMODAL ACCOMODATION, AND CORRIDOR IMPROVEMENTS

1 inch = 200 feet

0 100 200 Feet

Basemap: MassGIS Aerial 2021

DDP Number: 1

Contract - 608053 / 609255/ 613052

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Proposal No. 609255-130934

MassDOT NLEB Presence/Probable Absence Survey



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Northern Long-eared Bat Habitat Suitability Assessment and Presence/Absence Survey

TETRA TECH

MANSFIELD- INTERSECTION & SIGNAL IMPROVEMENTS, MULTIMODAL ACCOMODATION, AND CORRIDOR IMPROVEMENTS

1 inch = 200 feet

0 100 200 Feet

Basemap: MassGIS Aerial 2021

DDP Number: 3

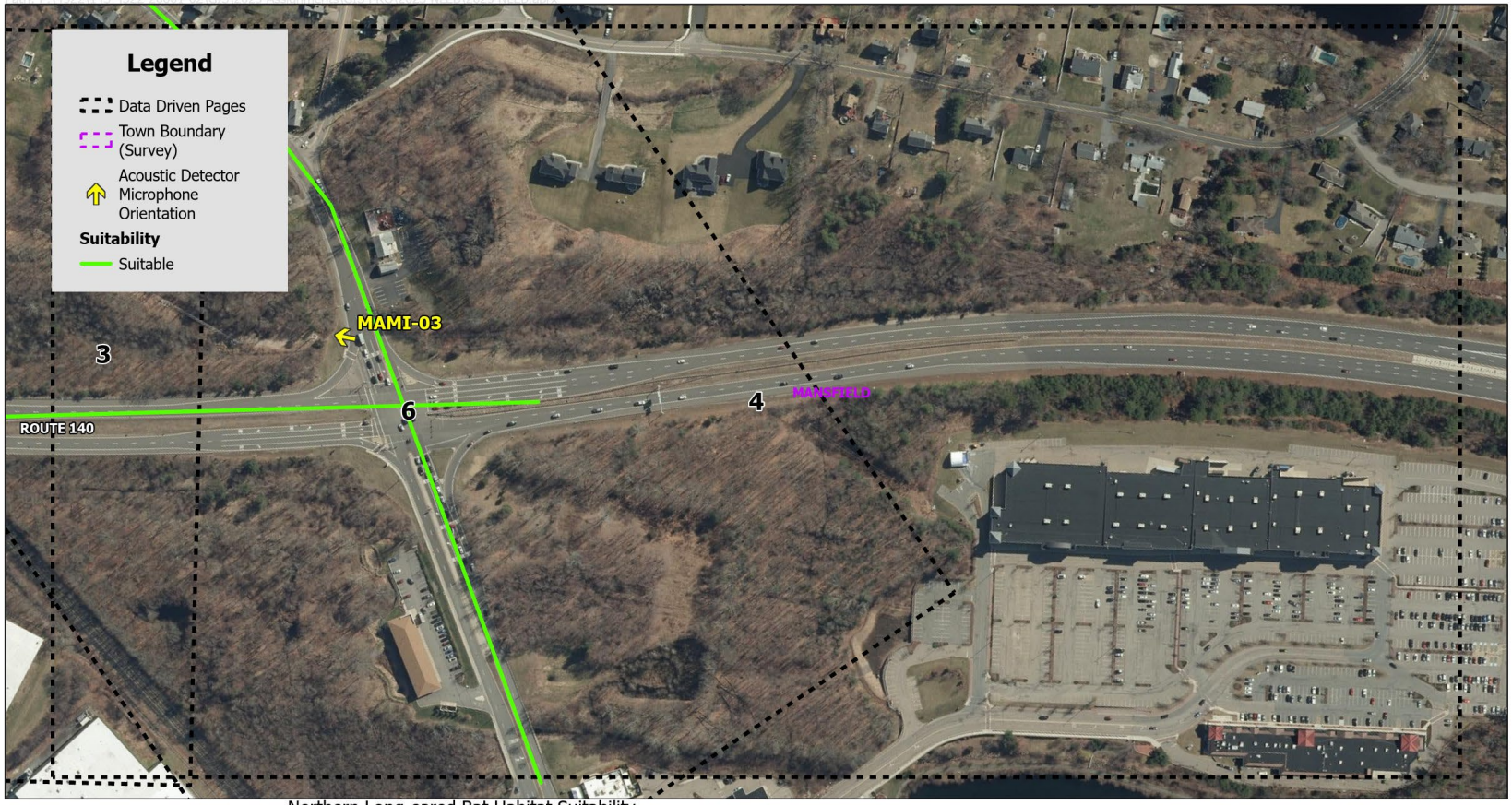
Contract - 608053 / 609255/ 613052

A00856 - 26

Proposal No. 609255-130934

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Northern Long-eared Bat Habitat Suitability Assessment and Presence/Absence Survey

TETRA TECH

MANSFIELD- INTERSECTION & SIGNAL IMPROVEMENTS, MULTIMODAL ACCOMODATION, AND CORRIDOR IMPROVEMENTS

1 inch = 200 feet

0 100 200 Feet

Basemap: MassGIS Aerial 2021

DDP Number: 4

Contract - 608053 / 609255/ 613052

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Northern Long-eared Bat Habitat Suitability Assessment and Presence/Absence Survey

TETRA TECH

MANSFIELD- INTERSECTION & SIGNAL IMPROVEMENTS, MULTIMODAL ACCOMODATION, AND CORRIDOR IMPROVEMENTS

1 inch = 200 feet

0 100 200 Feet

Basemap: MassGIS Aerial 2021

DDP Number: 5

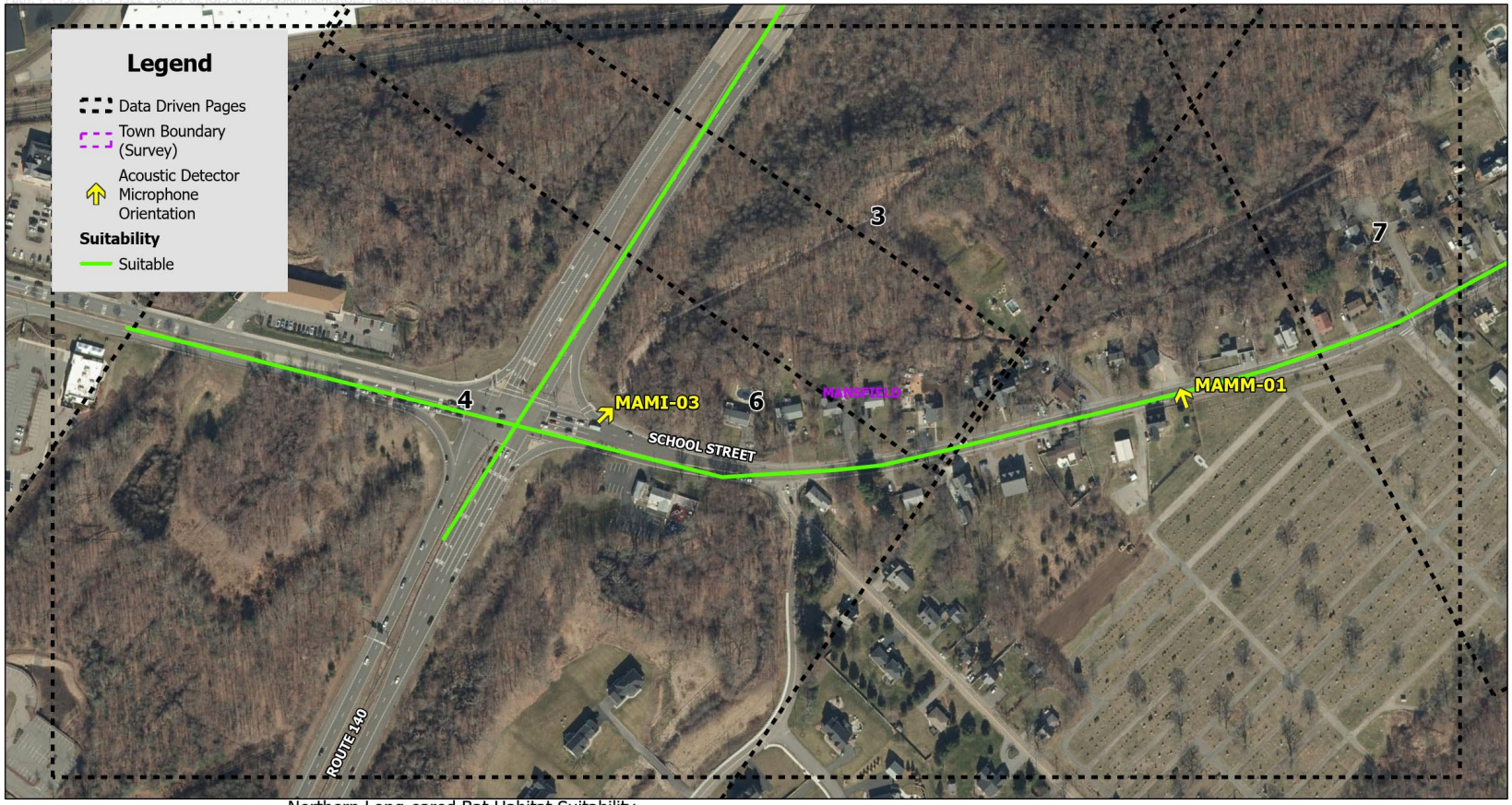
Contract - 608053 / 609255/ 613052

A00856 - 28

Proposal No. 609255-130934

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Northern Long-eared Bat Habitat Suitability Assessment and Presence/Absence Survey

TETRA TECH

MANSFIELD- INTERSECTION & SIGNAL IMPROVEMENTS, MULTIMODAL ACCOMODATION, AND CORRIDOR IMPROVEMENTS

1 inch = 200 feet

0 100 200 Feet

Basemap: MassGIS Aerial 2021

DDP Number: 6

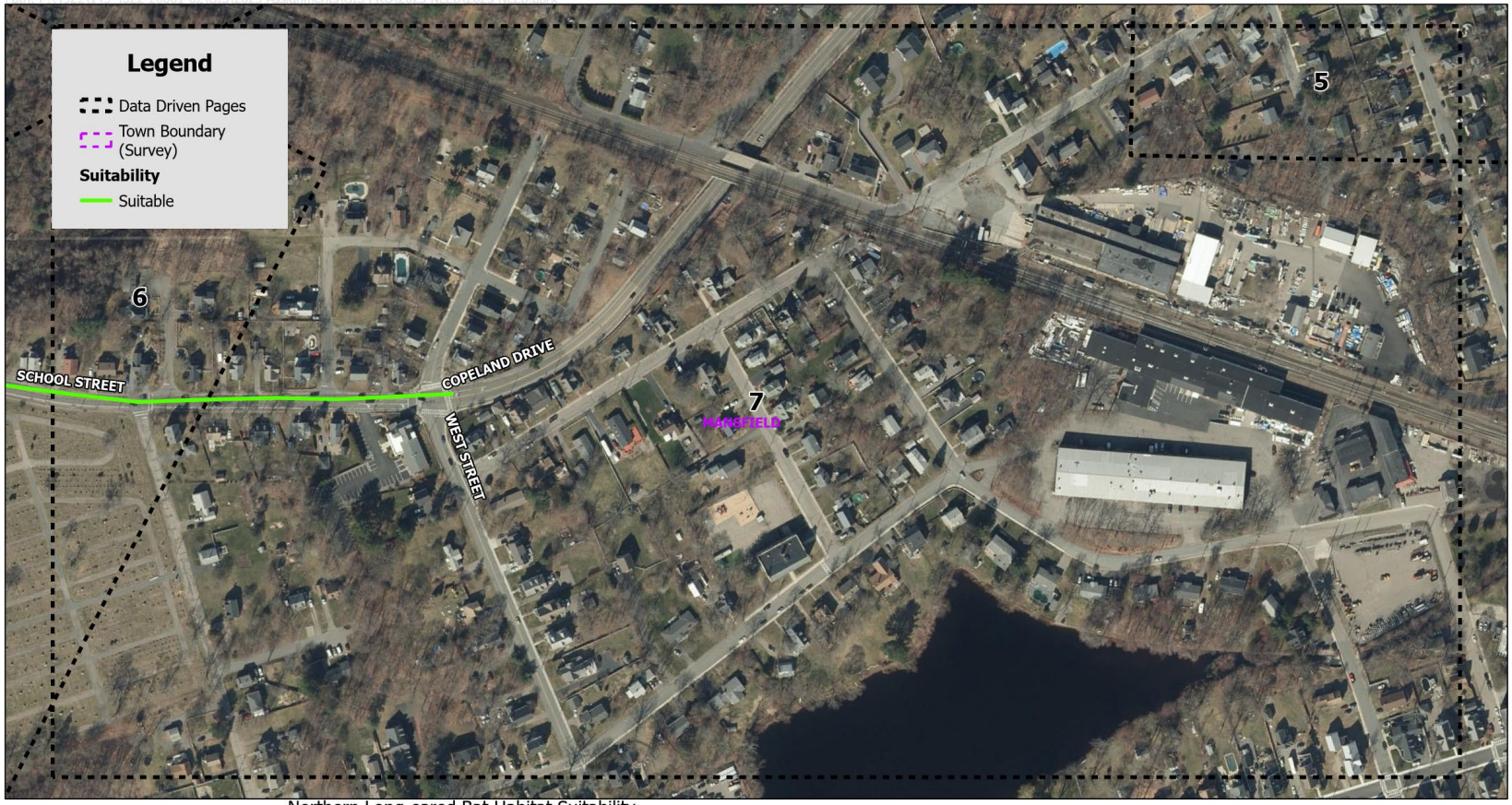
Contract - 608053 / 609255/ 613052

A00856 - 29

Proposal No. 609255-130934

Date Saved: 10/24/2023 3:16 PM

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Northern Long-eared Bat Habitat Suitability Assessment and Presence/Absence Survey

TETRA TECH

MANSFIELD- INTERSECTION & SIGNAL IMPROVEMENTS, MULTIMODAL ACCOMODATION, AND CORRIDOR IMPROVEMENTS

1 inch = 200 feet

0 100 200 Feet

Basemap: MassGIS Aerial 2021

DDP Number: 7

Contract - 608053 / 609255/ 613052

A00856 - 30

Proposal No. 609255-130934



Photo No.: 1

Station: MAMI-01

Direction: North

Date: 6/17/2023

Comments: Detector placed with microphone facing southeast on the side of a highway bordered by small forest patches.



Photo No.: 2

Station: MAMI-01

Direction: East

Date: 6/17/2023

Comments: Detector placed with microphone facing southeast on the side of a highway bordered by small forest patches.



Photo No.: 3

Station: MAMI-01

Direction: South

Date: 6/17/2023

Comments: Detector placed with microphone facing southeast on the side of a highway bordered by small forest patches.



Photo No.: 4

Station: MAMI-01

Direction: West

Date: 6/17/2023

Comments: Detector placed with microphone facing southeast on the side of a highway bordered by small forest patches.



Photo No.: 5

Station: MAMI-01

Direction: West

Date: 6/17/2023

Comments: Detector placed with microphone facing southeast on the side of a highway bordered by small forest patches. Photo shows a snag in proximity to the detector.



Photo No.: 6

Station: MAMI-02

Direction: North

Date: 6/17/2023

Comments: Detector placed in a grassy strip alongside a highway next to a wooded area with microphone facing southeast. There is a small stream in the woods parallel to the road.



Photo No.: 7

Station: MAMI-02

Direction: East

Date: 6/17/2023

Comments: Detector placed in a grassy strip alongside a highway next to a wooded area with microphone facing southeast. There is a small stream in the woods parallel to the road.



Photo No.: 8

Station: MAMI-02

Direction: South

Date: 6/17/2023

Comments: Detector placed in a grassy strip alongside a highway next to a wooded area with microphone facing southeast. There is a small stream in the woods parallel to the road.



Photo No.: 9

Station: MAMI-02

Direction: West

Date: 6/17/2023

Comments: Detector placed in a grassy strip alongside a highway next to a wooded area with microphone facing southeast. There is a small stream in the woods parallel to the road.



Photo No.: 10

Station: MAMI-02

Direction: Unknown

Date: 6/17/2023

Comments: Detector placed in a grassy strip alongside a highway next to a wooded area with microphone facing southeast. There is a small stream in the woods parallel to the road. Photo shows a snag proximal to the detector.



Photo No.: 11

Station: MAMI-02

Direction: Unknown

Date: 6/17/2023

Comments: Detector placed in a grassy strip alongside a highway next to a wooded area with microphone facing southeast. There is a small stream in the woods parallel to the road. Photo shows a stream proximal to the detector.



Photo No.: 12

Station: MAMI-03

Direction: North

Date: 6/17/2023

Comments: Detector placed with microphone facing north at the edge of a highway along a power line corridor. Detector station is bordered by forest.



Photo No.: 13

Station: MAMI-03

Direction: East

Date: 6/17/2023

Comments: Detector placed with microphone facing north at the edge of a highway along a power line corridor. Detector station is bordered by forest.



Photo No.: 14

Station: MAMI-03

Direction: South

Date: 6/17/2023

Comments: Detector placed with microphone facing north at the edge of a highway along a power line corridor. Detector station is bordered by forest.



Photo No.: 15

Station: MAMI-03

Direction: West

Date: 6/17/2023

Comments: Detector placed with microphone facing north at the edge of a highway along a power line corridor. Detector station is bordered by forest.



Photo No.: 16

Station: MAMI-03

Direction: Unknown

Date: 6/17/2023

Comments: Detector placed with microphone facing north at the edge of a highway along a power line corridor. Detector station is bordered by forest. Photo shows a snag proximal to the detector station.



Photo No.: 17

Station: MAMM-01

Direction: Northeast

Date: 6/14/2023

Comments: Detector placed with microphone facing west adjacent to a road by a cemetery in a residential area where vegetation is a mixture of small forest blocks and maintained lawn. Wind monitor deployed at this detector station.



Photo No.: 18

Station: MAMM-01

Direction: Northwest

Date: 6/14/2023

Comments: Detector placed with microphone facing west adjacent to a road by a cemetery in a residential area where vegetation is a mixture of small forest blocks and maintained lawn. Wind monitor deployed at this detector station.



Photo No.: 19

Station: MAMM-01

Direction: Southeast

Date: 6/14/2023

Comments: Detector placed with microphone facing west adjacent to a road by a cemetery in a residential area where vegetation is a mixture of small forest blocks and maintained lawn. Wind monitor deployed at this detector station.



Photo No.: 20

Station: MAMM-01

Direction: Southwest

Date: 6/14/2023

Comments: Detector placed with microphone facing west adjacent to a road by a cemetery in a residential area where vegetation is a mixture of small forest blocks and maintained lawn. Wind monitor deployed at this detector station.



Photo No.: 21

Station: MAMC-01

Direction: North

Date: 6/17/2023

Comments: Detector placed with microphone facing north on a road intersection surrounded by commercial development and small forest blocks.



Photo No.: 22

Station: MAMC-01

Direction: East

Date: 6/17/2023

Comments: Detector placed with microphone facing north on a road intersection surrounded by commercial development and small forest blocks.



Photo No.: 23

Station: MAMC-01

Direction: South

Date: 6/17/2023

Comments: Detector placed with microphone facing north on a road intersection surrounded by commercial development and small forest blocks.



Photo No.: 24

Station: MAMC-01

Direction: West

Date: 6/17/2023

Comments: Detector placed with microphone facing north on a road intersection surrounded by commercial development and small forest blocks.



Photo No.: 25

Station: MAMC-01

Direction: Unknown

Date: 6/17/2023

Comments: Detector placed with microphone facing north on a road intersection surrounded by commercial development and small forest blocks. Photo shows a snag proximal to detector.

APPENDIX B. COMPLETED PHASE 1 SUMMER HABITAT ASSESSMENT

PHASE 1 SUMMER HABITAT ASSESSMENTS

NORTHERN LONG-EARED BAT HABITAT ASSESSMENT DATASHEET

Project Name: Mansfield Intersection Date: 3/20/24

Township/Range/Section: Mansfield, MA

Lat Long/UTM/ Zone: 42.026960°,-71.231700° Surveyor: Nicholas Boulanger

Brief Project Description

This project entails intersection and signal improvements at SR 140 (Commercial Street) and SR 106 (Chauncey Street). This project contains approximately 2.6km of suitable habitat within the Project Area with 2 culverts for inspection.

Project Area

	Total Acres	Forest Acres	Open Acres
Project	2.6km linear	2.6km	0

	Completely cleared	Partially cleared (will leave trees)	Preserve acres- no clearing
Proposed Tree Removal (ac)	UNK	UNK	UNK

Vegetation Cover Types

Pre-Project	Post-Project
2.6km of roadway bordered by forest, with light to heavy commercial development throughout. Dominant tree species include white and red oak, white pine, red maple, and American elm.	Similar. No large-scale tree removal is planned for this work.

Landscape within 5 mile radius

Flight corridors to other forested areas?

None.

Describe Adjacent Properties (e.g. forested, grassland, commercial or residencial development, water sources)

Forest land interspersed with commercial developments. Water sources: Kingman Pond and Fulton Pond, east.

Proximity to Public Land

What is the distance (mi.) from the project area to forested public lands (e.g., national or state forests, national or state parks, conservation areas, wildlife management areas)?

Dorothy L. York Conservation Area 2km east
Marie Streese Conservation Area 2.5km east
Maple Park Conservation Area 3.5km northeast
F. Gilbert Hills State Forest 2.75 km northwest

PHASE 1 SUMMER HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area
A single sheet can be used for multiple sample sites if habitat is the same

Sample Site Description

Sample Site No.(s): MAMI-01

Water Resources at Sample Site

Stream Type (# and length)	Ephemeral	Intermittent	Perennial	Describe existing condition of water sources:
			1 (>1 mile)	
Pools/Ponds (# and size)	1 (0.2 acres)	Open and accessible to bats?		Robinson Brook is east and south of the detector. Wetlands are located across Route 140 to the west, across Foxborough Boulevard to the east, and across Forbes Boulevard to the south. Open to bats, very minimal trees.
		yes		
Wetlands (approx. ac.)	Permanent	Seasonal		
	3 (13 acres)			

Forest Resources at Sample Site

Closure/Density	Canopy (> 50 ')	Midstory (20-50')	Understory (<20')	1=1-10%, 2=11-20%, 3=21-40%, 4=41-60%, 5=61-80%, 6=81=100%
	0	1	1	
Dominant Species of Mature Trees	white oak, red oak, white pine, red maple, American elm			
% Trees w/ Exfoliating Bark	0	1		
Size Composition of Live Trees (%)	Small (3-8 in)	Med (9-15 in)	Large (>15 in)	
	6	1	0	
No. of Suitable Snags		1		

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR NORTHERN LONG-EARED BATS? yes

Additional Comments:

Detector located on east side of Route 140 facing southeast. Small patches of forest near highway. One snag located across the highway to the west.

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources

PHASE 1 SUMMER HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area
A single sheet can be used for multiple sample sites if habitat is the same

Sample Site Description

Sample Site No.(s): MAMI-02

Water Resources at Sample Site

Stream Type (# and length)	Ephemeral	Intermittent	Perennial	Describe existing condition of water sources:
		1 (>1 mile)	1	
Pools/Ponds (# and size)	0	Open and accessible to bats?		Intermittent stream connecting multiple wetlands to Rumford River. Detector adjacent to shrub swamp wetland.
Wetlands (approx. ac.)	Permanent	Seasonal		
	3 (3 acres)			

Forest Resources at Sample Site

Closure/Density	Canopy (> 50 ')	Midstory (20-50')	Understory (<20')	1=1-10%, 2=11-20%, 3=21-40%, 4=41-60%, 5=61-80%, 6=81=100%
	1	3	2	
Dominant Species of Mature Trees	white pine, red oak, white oak			
% Trees w/ Exfoliating Bark	1	0	0	
Size Composition of Live Trees (%)	Small (3-8 in)	Med (9-15 in)	Large (>15 in)	
	3	4	2	
No. of Suitable Snags		1		

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR NORTHERN LONG-EARED BATS? yes

Additional Comments:

Detector located on grass strip adjacent to the highway facing southeast. Small patches of forest along highway. Residential and commercial surrounding detector location.

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources

PHASE 1 SUMMER HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area
A single sheet can be used for multiple sample sites if habitat is the same

Sample Site Description

Sample Site No.(s): _____ MAMI-03

Water Resources at Sample Site

Stream Type (# and length)	Ephemeral	Intermittent	Perennial 1 (>1 mile)	Describe existing condition of water sources:
Pools/Ponds (# and size)	0	Open and accessible to bats?		Wetland directly to the north of the detector. Stream to the east of detector through forest.
Wetlands (approx. ac.)	Permanent 6 (9 acres)	Seasonal		

Forest Resources at Sample Site

Closure/Density	Canopy (> 50 ') 1	Midstory (20-50') 3	Understory (<20') 2	1=1-10%, 2=11-20%, 3=21-40%, 4=41-60%, 5=61-80%, 6=81=100%
Dominant Species of Mature Trees	white pine, red oak, white oak, red maple			
% Trees w/ Exfoliating Bark	1	0		
Size Composition of Live Trees (%)	Small (3-8 in) 4	Med (9-15 in) 3	Large (>15 in) 1	
No. of Suitable Snags		1		

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR NORTHERN LONG-EARED BATS? yes

Additional Comments:

Detector facing northwest towards transmission line and wetland.

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources

PHASE 1 SUMMER HABITAT ASSESSMENTS

NORTHERN LONG-EARED BAT HABITAT ASSESSMENT DATASHEET

Project Name: Mansfield Multimodal

Date: 6/14/2023

Township/Range/Section: Mansfield, MA

Lat Long/UTM/ Zone: 42.020566°, -71.224685°

Surveyor: Nicholas Boulanger

Brief Project Description

This project entails installation of multimodal accommodations on School Street between Spring Street and West Street. This project contains approximately 1.1km of suitable habitat within the Project Area.

Project Area

	Total Acres	Forest Acres	Open Acres
Project	1.1km linear	1.1km	0

	Completely cleared	Partially cleared (will leave trees)	Preserve acres- no clearing
Proposed Tree Removal (ac)	UNK	UNK	UNK

Vegetation Cover Types

Pre-Project	Post-Project
Open forest with residential development. Typical tree species include red maple and locust.	Similar.

Landscape within 5 mile radius

Flight corridors to other forested areas?

Yes, to the south

Describe Adjacent Properties (e.g. forested, grassland, commercial or residencial development, water sources)

Predominantly residential and suburban. Nearby water sources include Fulton Pond (7 acres) and Kingman Pond (5.5 acres).

Proximity to Public Land

What is the distance (mi.) from the project area to forested public lands (e.g., national or state forests, national or state parks, conservation areas, wildlife management areas)?

Wrentham State Forest: 5 miles west
Borderland State Park: 5 miles northeast
F. Gilbert Hills State Forest: 3 miles northwest
Great Woods Consrvation Area: 2.5 miles south

PHASE 1 SUMMER HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area
A single sheet can be used for multiple sample sites if habitat is the same

Sample Site Description

Sample Site No.(s): MAMM-01

Water Resources at Sample Site

Stream Type (# and length)	Ephemeral	Intermittent	Perennial	Describe existing condition of water sources:
			1 (>1 mile)	
Pools/Ponds (# and size)	0	Open and accessible to bats?		One wetland northwest of detector. Stream connecting multiple wetlands to the Rumford River. Wetland and stream are behind residential homes.
Wetlands (approx. ac.)	Permanent	Seasonal		
	1 (1.3 acres)			

Forest Resources at Sample Site

Closure/Density	Canopy (> 50 ')	Midstory (20-50')	Understory (<20')	1=1-10%, 2=11-20%, 3=21-40%, 4=41-60%, 5=61-80%, 6=81=100%
	1	0	0	
Dominant Species of Mature Trees	Locust			
% Trees w/ Exfoliating Bark	0	0	0	
Size Composition of Live Trees (%)	Small (3-8 in)	Med (9-15 in)	Large (>15 in)	
		1	1	
No. of Suitable Snags		0		

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR NORTHERN LONG-EARED BATS? Yes

Additional Comments:

Detector faces northwest across a road. Surroundings are residential. Mature trees opposite detector in yards. No understory. Majority open grass. Min cover. Wind monitor at this location.

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources

PHASE 1 SUMMER HABITAT ASSESSMENTS

NORTHERN LONG-EARED BAT HABITAT ASSESSMENT DATASHEET

Project Name: Mansfield Corridor Date: 6/17/2023

Township/Range/Section: Mansfield, MA

Lat Long/UTM/ Zone: 42.031483°,-71.233454° Surveyor: Nicholas Boulanger

Brief Project Description

This project entails corridor improvements on Chauncy Street (Route 106) From State Route 140 to Copeland Drive. This project contains approximately 1.1km of suitable habitat within the Project Area.

Project Area

	Total Acres	Forest Acres	Open Acres
Project	1.1km linear	1.1km	0

	Completely cleared	Partially cleared (will leave trees)	Preserve acres- no clearing
Proposed Tree Removal (ac)	UNK	UNK	UNK

Vegetation Cover Types

Pre-Project	Post-Project
Dense forest, including elm, white pine, and oak, bordering intersection.	Similar. No major tree clearing is expected for this work.

Landscape within 5 mile radius

Flight corridors to other forested areas?

None.

Describe Adjacent Properties (e.g. forested, grassland, commercial or residencial development, water sources)

Forest land interspersed with commercial developments. Kingman Pond and Fulton Pond to the east for water sources.

Proximity to Public Land

What is the distance (mi.) from the project area to forested public lands (e.g., national or state forests, national or state parks, conservation areas, wildlife management areas)?

Dorothy L. York Conservation Area 2km east
Marie Streese Conservation Area 2.5km east
Maple Park Conservation Area 3.5km northeast
F. Gilbert Hills State Forest

PHASE 1 SUMMER HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area
A single sheet can be used for multiple sample sites if habitat is the same

Sample Site Description

Sample Site No.(s): MAMC-01

Water Resources at Sample Site

Stream Type (# and length)	Ephemeral	Intermittent	Perennial	Describe existing condition of water sources:
	0	0	0	Wetland located northwest of detector just inside the tree line. 2 other wetlands located northeast of detector just inside tree line.
Pools/Ponds (# and size)	0	Open and accessible to bats?		
Wetlands (approx. ac.)	Permanent	Seasonal		
	5 (8 acres)			

Forest Resources at Sample Site

Closure/Density	Canopy (> 50 ')	Midstory (20-50')	Understory (<20')	1=1-10%, 2=11-20%, 3=21-40%, 4=41-60%, 5=61-80%, 6=81=100%
	1	3	1	
Dominant Species of Mature Trees	elm, white pine, oak			
% Trees w/ Exfoliating Bark	1	0	0	
Size Composition of Live Trees (%)	Small (3-8 in)	Med (9-15 in)	Large (>15 in)	
	1	4	2	
No. of Suitable Snags		1		

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR NORTHERN LONG-EARED BATS? yes

Additional Comments:

Detector on western side of Route 140 facing northward along tree line. Small grass strip along highway adjacent to tree line. Wetland located north of detector on western side, just inside the tree line. Other wetlands located across the highway to the northeast just inside the tree line.

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources

APPENDIX C. MAXIMUM LIKELIHOOD ESTIMATES (MLE) SUMMARY

Table C-1. Summary of Maximum Likelihood Estimates (MLEs) for species presence by Kaleidoscope Pro 5.4.0 at Mansfield Projects, MassDOT Project Nos. 608053, 609255, and 613052 (June 2023). Significant MLE scores are highlighted in gray.

Station	Date	Big brown bat	Eastern red bat	Hoary bat	Silver-haired bat	Eastern small-footed bat	Little brown bat	NLEB	Tricolored bat
MAMI_01	6/14/2023	0.13	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/15/2023	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
	6/16/2023	0.32	0.00	0.00	1.00	1.00	1.00	1.00	1.00
	6/17/2023	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/18/2023	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
	6/19/2023	0.05	0.00	0.00	0.67	1.00	1.00	1.00	1.00
MAMI_02	6/14/2023	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/15/2023	0.51	0.00	0.00	0.00	1.00	1.00	1.00	1.00
	6/16/2023	0.80	0.00	0.00	0.00	1.00	0.73	1.00	1.00
	6/17/2023	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/18/2023	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
	6/19/2023	0.01	0.03	0.00	0.17	1.00	1.00	1.00	1.00
MAMI_03	6/14/2023	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/15/2023	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/16/2023	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/17/2023	0.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/18/2023	0.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	6/19/2023	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MAMM_01	6/14/2023	0.00	0.00	0.00	0.01	1.00	1.00	1.00	1.00
	6/15/2023	0.01	0.00	0.00	0.00	1.00	0.85	1.00	1.00
	6/16/2023	0.00	0.00	0.00	0.00	1.00	0.05	1.00	1.00
	6/17/2023	0.00	0.00	0.62	1.00	1.00	1.00	1.00	1.00
	6/18/2023	0.00	0.00	0.00	0.55	1.00	0.89	1.00	1.00
	6/19/2023	0.01	0.20	0.00	1.00	1.00	0.06	1.00	1.00

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Station	Date	Big brown bat	Eastern red bat	Hoary bat	Silver-haired bat	Eastern small-footed bat	Little brown bat	NLEB	Tricolored bat
MAMC_01	6/14/2023	0.00	0.00	0.00	0.56	1.00	1.00	1.00	1.00
	6/15/2023	0.37	0.00	0.00	0.32	1.00	0.77	1.00	0.25
	6/16/2023	0.08	0.00	0.00	1.00	1.00	0.93	1.00	0.92
	6/17/2023	1.00	1.00	0.05	1.00	1.00	1.00	1.00	1.00
	6/18/2023	0.01	0.00	0.00	0.60	1.00	0.47	1.00	0.92
	6/19/2023	0.00	0.00	0.00	0.91	1.00	1.00	1.00	1.00

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Proposal No. 609255-130934

APPENDIX D. RELEVANT STAFF RESUMES

TETRA TECH

Baxter Seguin
Bat Biologist

EXPERIENCE SUMMARY

Baxter Seguin is a wildlife biologist with over 10 years of experience in projects in various states including Maine, New York, Ohio, Virginia, New Jersey, and Nebraska. He has a broad background in environmental science and wildlife research. He has a particular emphasis in mammalogy with a primary focus on bat biology and ecology. He has been especially involved with bat acoustic monitoring and data analysis. Before joining Tetra Tech Mr. Seguin played a lead role in implementing the NABat program throughout the state of Nebraska to determine long term trends in population and habitat usage of bats. More recently Mr. Seguin has provided data analysis and report writing according to the U.S. Fish and Wildlife Service guidelines related to bats for development projects throughout the northeast.

CORPORATE PROJECT EXPERIENCE

Wildlife Biologist, 2023
Presence/Absence Surveys, Various Projects in VA
Conducted northern long-eared bat presence/absence surveys and habitat assessments according to USFW 2023 Northern Long-Eared Bat Summer Survey Guidelines. Prepared reports and conducted manual vetting of acoustic data and summarized data for projects throughout the state of Virginia.

Wildlife Biologist, 2023
Bat Acoustic Survey, Wind Project in MT
Developed a bat acoustics report for a wind and solar development project in Montana. Acoustics consisted of 4 detectors that collected data for a year using SM4 bat detectors. Conducted autoclassification using Kaleidoscope Pro and manually vetted bat passes for each species detected at the site using Sonobat 4.

Wildlife Biologist, 2023
Bat Acoustic Survey, Wind Project in KS
Bat acoustic survey for a 300 turbine wind energy development project in Kansas. Analyzed data from a total of 6 bat detectors were deployed for most of 2022. Conducted autoclassification using Kaleidoscope Pro and manually vetted bat passes for each species detected at the site using Sonobat 4.

Wildlife Biologist, 2023
Bat Acoustic Survey, Wind Farm, CO
Determined site selection for bat acoustic detectors for a proposed wind farm in Northeastern Colorado.

Wildlife Biologist, 2022
MassDOT, NLEB presence/Absence and Habitat Assessments, Various Road and Bridge Improvement Projects, MA
Conducted northern long-eared bat presence/absence surveys and habitat assessments according to USFW 2022 Indiana Bat and Northern Long-Eared Bat Summer Survey Guidelines. Prepared reports and summarized

EDUCATION

MSc, Natural Resource Science, University of Nebraska-Lincoln, 2019

BA, Environmental Studies, Green Mountain College, 2013

AREA OF EXPERTISE

Bat Acoustic Analysis

Bat Mist Netting

Habitat Analysis

GIS

REGISTRATIONS/ CERTIFICATIONS

40 Hour HAZWOPER; 2015

8 Hour HAZWOPER oil spill response; 2015

Wilderness First Responder; 2015

TRAINING

Bat Acoustics Training and Analysis Course; 2017

OFFICE

Portland, OR

YEARS OF EXPERIENCE

10

YEARS WITHIN FIRM

1

data for projects throughout the state of Massachusetts. Conducted autoclassification and manual vetting of bat echolocation data.

Wildlife Biologist, 2022
RiDOT, NLEB Presence/Absence and Habitat Assessments, Various Road and Bridge Improvement Projects, RI
Conducted northern long-eared bat presence/absence surveys and habitat assessments according to USFW 2022 Indiana Bat and Northern Long-Eared Bat Summer Survey Guidelines. Prepared reports and summarized data for projects throughout the state of Rhode Island. Conducted autoclassification and manual vetting of bat echolocation data.

Wildlife Biologist, 2022
Bat Acoustic Survey, Wind Project, CO
Acoustic survey for predevelopment of a 365 turbine wind farm in Colorado. Acoustics consisted of 4 detectors that collected data for most of 2022 using SM4 bat detectors. Conducted autoclassification using Kaleidoscope Pro and manually vetted bat passes for each species detected at the site using Sonobat 4.

PREVIOUS EXPERIENCE

Nebraska and Wyoming NABat Coordinator, 2016-2020

Nebraska Fish and Wildlife Research Unit, Nebraska Game and Parks Commission, Lincoln,NE

As NABat Coordinator, designed and implemented Nebraska specific NABat program through out the state. Supervised and coordinated over 30 individuals across the program. Conducted all acoustic analysis on bat echolocation data.

Bat Acoustic Specialist, 2016-2020

Nebraska Game and Parks Commisson, Chadron, NE

As bat acoustic specialist, provided bat acoustic analysis for projects in the northeastern corner of Nebraska. Provided acoustic analysis training to various Nebraska Game and Parks and U.S. Forest Service employees. Gave budgetary and research recommendations for the region regarding bat research and protection. Presented bat related research to public entities and potential state collaborators.

Bat Field Technician, 2013 and 2015

Biodiversity Research Institute, Portland, ME

As bat field technician, conducted summer bat surveys for Indiana bat (*Myotis sodalist*) and northern long-eared bat (*Myotis septentrionalis*) in multiple states. Conducted mist netting, ground and airplane radio telemetry, and stationary acoustic surveys. Worked in national parks, private land, and military bases.

OTHER INFORMATION (ADDITIONAL TRAINING, PUBLICATION(S), AWARD(S), ETC.)

PUBLICATIONS & PRESENTATIONS

Hogan, K.F.E., Fogarty, D.T., Ellerman, H., Fill, C., Morales, D., Seguin, B., Uden, D., Allen, C. 2022. Rangelands in a fragmented grass-dominated landscape are vulnerable to tree invasion from roadsides. Biological Invasions. Lincoln, NE.

Seguin, B. 2019. Implementing the north American bat monitoring program in Nebraska: An assessment of Nebraska bats with an emphasis on citizen science. M.S. Thesis, University of Nebraska-Lincoln.

TETRA TECH

Nicholas Boulanger
Bat Field Technician

EXPERIENCE SUMMARY

Nicholas Boulanger is a field technician with three years of experience in wildlife biology, with an emphasis on bat monitoring projects. Before joining Tetra Tech, Nicholas played a critical role in a significant post-construction wind fatality monitoring project evaluating the potential of different curtailment methods to reduce impacts on migrating bats.

CORPORATE PROJECT EXPERIENCE

Field Technician, August 2023
Sun Tribe Solar Boston Hill Presence/Absence and Habitat Assessments, VA

Conducted northern long-eared bat and Indiana bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines. Selected deployment locations for bat detectors in cooperation with local landowners.

Field Technician, August 2023
Sun Tribe Solar Cumberland Presence/Absence and Habitat Assessments, VA

Conducted northern long-eared bat and Indiana bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines. Selected deployment locations for bat detectors in cooperation with local landowners.

Field Technician, July 2023
Empire Offshore Wind Presence/Absence and Habitat Assessment, Island Park, NY

Conducted northern long-eared bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines. Prepared GIS data.

Field Technician, July 2023
RIDOT, NLEB Presence/Absence and Habitat Assessments, Various Road and Bridge Improvement Projects, RI

Conducted northern long-eared bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines. Prepared reports and summarized data for projects throughout the state of Rhode Island.

Field Technician, June 2023
MassDOT, NLEB Presence/Absence and Habitat Assessments, Various Road and Bridge Improvement Projects, MA

Conducted northern long-eared bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines. Prepared reports and summarized data for projects throughout the state of Massachusetts.

EDUCATION

MS, Environmental Science & Policy, University of Wisconsin-Green Bay, 2020

BS, Conservation Biology, University of Wisconsin-Madison, 2016

AREA OF EXPERTISE

Wildlife Biology

Acoustic Surveys

Bat Monitoring

TRAINING

CPR and First Aid, 2023

Acoustic ID of Northeastern Bat Species, 2021

OFFICE

Portland, ME

YEARS OF EXPERIENCE

3

YEARS WITHIN FIRM

<1

Field Technician, June 2023
APV Virginia Beach Presence/Absence and Habitat Assessment, Virginia Beach, VA

Conducted northern long-eared bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines.

Field Technician, May/June 2023
Woodridge Solar Presence/Absence and Habitat Assessments, VA

Conducted bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines.

Field Technician, May/June 2023
Dominion Beldale Solar Presence/Absence and Habitat Assessments, VA

Conducted bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines.

Field Technician, May/June 2023
Dominion Finneywood Solar Presence/Absence and Habitat Assessments, VA

Conducted bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines.

Field Technician, May/June 2023
Dominion Laurel Branch Solar Presence/Absence and Habitat Assessments, VA

Conducted bat presence/absence surveys and habitat assessments according to USFW 2023 Indiana Bat and Northern Long-Eared Bat (NLEB) Summer Survey Guidelines.

Field Technician, May 2023
Bluepoint Wind Acoustic Bat Survey, Brooklyn, NY

Installed bat detector on an ocean vessel for monitoring offshore bat activity.

Field Technician, May 2023
Flickertail Wind LIC, Acoustic Bat Survey, Carrington, ND

Deployed long-term acoustic monitoring stations for bats. Prepared GIS data.

Field Technician, March 2023
White Oak Wind, Acoustic Bat Survey, King County, TX

Deployed long-term acoustic monitoring stations for bats, including MET tower microphone deployment.

Field Technician, March 2023
CVOW Commercial Project

Performed QAQC for acoustic data collected during the 2022 field season.

PREVIOUS EXPERIENCE

Site Leader, May 2022 – Dec 2022
Bat Conservation International, Orient, IA

Managed a major post-construction fatality monitoring project researching bats and wind energy. Coordinated with wind energy facility site staff and local landowners to facilitate carcass searches proceeded on schedule. Identified carcasses found to species, sex and age, and estimated time of death. Set up and maintained thermal camera arrays, acoustic detectors, and weather stations with accompanying solar power installations. Oversaw the safety of search crews and monitored weather hazards and pesticide exposure risks.

TETRA TECH

Kenneth A. Deshais, CPSS

Senior Project Scientist

EXPERIENCE SUMMARY

Mr. Deshais is a Senior Project Scientist with 29 years of experience conducting environmental assessments in the eastern United States. As a permitting and wetland specialist, he prepares permits in accordance with local, state and federal regulations, and presents findings to permitting authorities. Mr. Deshais is also responsible for soil and vegetation investigations, construction supervision, erosion and sediment control planning, resource area identification and wildlife habitat evaluations. In addition, he completes investigations and reports for stormwater management, land use/zoning, impact evaluation and mitigation planning projects.

RELEVANT EXPERIENCE

Geotechnical Support Services, Massachusetts Water Resources Authority (MWRA), Boston, MA, 2022 to Present. Permit Specialist for the Metropolitan Water Tunnel Program (MWTP) Geotechnical Support Services contract. The MWTP includes 14 miles of deep rock tunnels and surface connections to provide critical redundancy to the water supply in the Boston area. Responsible for project permitting including Massachusetts Wetlands Protection Act and Massachusetts Department of Conservation and Recreation Access permitting.

Stormwater Pollution Prevention Plan Review, MassDOT – District 5, 2021 to 2022. Performed peer review of Stormwater Pollution Prevention Plans (SWPPP) pursuant to the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities (CGP) for projects throughout the District. Reviews included checks for compliance with the 2017 and 2022 CGPs.

Rushy Marsh Farm Expansion, Cotuit, MA, 2014 to Present. As Senior Project Scientist, providing environmental permitting support for the proposed expansion of an operating farm within a coastal community on Cape Cod. The project includes several buildings and facility renovations on property that extends from the coastal banks of Nantucket Sound inland to the tidal estuary of Fullers Marsh.

Boulder Brook Drainage Improvements, MassDOT, Wellesley, MA, 2023. MassDOT recently awarded the first project under its new Resiliency Program to Tetra Tech, the design of drainage improvements along Route 9 and culvert replacements over Boulder Brook. Senior Project Scientist supporting the evaluation of the preferred alternative. The preferred design alternative for the culvert replacements developed more than a decade ago by Tetra Tech will be reevaluated using current precipitation and streamflow data adjusted for climate change and applying current environmental regulations and wetland resource area conditions.



Education

MS, Soil Science, University of Massachusetts, 1995

BS, Environmental Science, University of Massachusetts, 1992

BS, Wildlife Management, University of Massachusetts, 1987

Registrations/Affiliations

Soil Science Society of America Certified Professional Soil Scientist (CPSS) No. 15285

EPA NPDES Construction General Permit Certified Site Inspector

Society of Soil Scientist of Southern New England Registered Professional Soil Scientist

Association of Massachusetts Wetland Scientists

Soil Science Society of America

Society of Wetland Scientists

Society of Soil Scientists of Southern New England, Special Assistant to the Board (2003-2004); Alternate Board Member (2001-2002)

Grafton Planning Board (1999)

Monson Conservation Commission, (1992-1996)

Office

Marlborough, MA

Years' Experience/with firm

29/28

Contact

Kenneth.Deshais@tetratech.com

MassDOT Highway Division, NLEB Presence/Absence Habitat Assessment and Detector Deployment, Various Road and Bridge Improvement Projects, MA. 2018 to Present. Assist with and deploy detectors, conduct habitat assessments, and bridge inspections at multiple location throughout the state according USFWS Indiana Bat and Northern Long-Eared Bat Summer Survey Guidelines. Summarized and wrote technical memorandums.

Middlesex Turnpike Phase 3 Project, MassDOT, Bedford and Billerica, MA, 2019 to 2020. Senior Project Scientist responsible for providing Environmental Monitor services in accordance with conditions of the Variance issued by MassDEP pursuant to the regulations of the Massachusetts Wetlands Protection Act.

Green Line Extension Project, Massachusetts Bay Transportation Authority (MBTA), Cambridge, Somerville, Medford, MA, 2017 to Present. Senior Project Scientist responsible for the development of the Project's Stormwater Pollution Prevention Plan (SWPPP) pursuant to the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities. Provide oversight of the Contractor's compliance with the SWPPP throughout the approximately three-mile project corridor.

I-495/I-90 Interchange Improvements, MassDOT Highway Division, Hopkinton and Westborough, MA, 2016 to Present. Senior Project Scientist for improvements to the I-495/I-90 interchange within an Area of Critical Environmental Concern (ACEC) and impacts to state designated Outstanding Resource Waters. Tetra Tech evaluated natural resources of the project area, confirmed the wetland delineation, compiled data for certification of vernal pools, prepared environmental review and permitting documents; contributing to the development of the design of the highway and bridge preferred alternative. Responsible for the preparation of the Project's Conceptual Wetland Mitigation Plan for the preferred alternative and review of the Design-Builder submittals for compliance with project permits and specifications.

Ashlar Park - Redevelopment of Former Quincy Hospital, FoxRock Properties, 114 Whitwell, Quincy, MA, 2018 to Present. Tetra Tech is providing site design, permitting and environmental assessment and remediation services, and a traffic impact and access study for redevelopment of the former Quincy Medical Center. Senior Project Scientist responsible for the development of the Project's Stormwater Pollution Prevention Plan (SWPPP) pursuant to the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities for the construction of an approximately 450 residential units.

Boston Children's Hospital, FoxRock Properties, Weymouth, MA, 2020 to Present. Scientist/Permit Specialist on the Tetra Tech team providing environmental, civil, traffic and permitting services for an 80,000- sf Medical Office Building. Responsible for wetland delineation and preparation of a Notice of Intent pursuant to the Massachusetts Wetlands Protection Act and the Weymouth Wetlands Protection and Regulations. Developed the Project's SWPPP pursuant to the U.S. Environmental Protection Agency's NP DES General Permit for Discharges from Construction Activities and obtained a Massachusetts Department of Environmental Protection BRP WM 15-NPDES SPPP for Construction General Permits Discharging to Outstanding Resource Waters.

Bay State Wind Offshore Wind Farm, Dong Energy, MA and RI, 2017 to 2020. Senior Project Scientist for wetland reconnaissance and for the onshore transmission cable routes and wetland resource identification and delineation for preferred cable route and onshore substation location. Prepared existing wetland resource assessment report for the and impact analysis for inclusion in the Project's COP.

Wetland Delineation, Solar Energy Facilities, Bright Lite Energy, Various Locations, MA, 2017 to 2018. Project Scientist for wetland delineation and classification for various solar projects in Orange and Brookfield.

Wetland Delineation, Solar Energy Facilities, Bright Lite Energy, Various Locations, NY, 2019. Project Scientist for wetland reconnaissance of over 335 acres of agricultural field and forest in Tully.

Wetland Delineation, Solar Energy Facilities, CT, 2019. Wetland/Soil Scientist responsible for wetland delineation confirmation/sign for a 460-acre site.

Wetland Mitigation Monitoring Woods Memorial Bridge Replacement and Transportation Improvements, MassDOT, Medford, MA, 2016 to 2021. Senior Project Scientist responsible for conducting annual monitoring and preparation of annual reports and the final assessment report in compliance with the United States Army Corps of Engineers permit, the Massachusetts Department of Environmental Protection's Water Quality Certification, and the Medford Conservation Commission permit requirements.

Statewide Impaired Waters Support Services, MassDOT Highway Division, 2013 to Present. Supporting a multi-year contract to provide MassDOT with a range of wetland and stormwater compliance measures including the design and permitting of stormwater BMPs under the Impaired Waters Program, National Pollutant Discharge Elimination System (NPDES) permit compliance and reporting activities, Illicit Discharge Detection and Elimination (IDDE), Construction Oversight and general Stormwater Consulting and Environmental Services. Responsible for soil and vegetation investigations, wetlands delineation and preparation of permits in accordance with local, state and federal regulations.

Statewide On-Call Environmental Services, MassDOT Highway Division, 2011 to Present. Supporting a multi-year contract for MassDOT that involved anything from routine roadway projects to major transportation improvement projects. Assignments supported under this contract included impaired water bodies watershed assessments, stormwater Best Management Practice (BMP) design plans, construction specifications and special provisions; preparation of environmental permit applications including Massachusetts Environmental Policy Act (MEPA) documentation, state and federal wetlands permits, and Chapter 91 Waterways licenses and permits; and public outreach including meetings with federal and state agencies, city/town officials and community groups. Responsible for soil and vegetation investigations, wetlands delineation and preparation of permits in accordance with local, state and federal regulations, and construction compliance inspections.

Route 18 Corridor Widening, MassDOT Highway Division, 2002 to Present. Wetlands Scientist for wetland resource area investigation, wetland mitigation design, and wildlife habitat evaluation of properties within an approximate five-mile section of Route 18. The project required a variance from wetlands regulations. Due to the inability to mitigate wetlands within the project limits, an off-site wetland mitigation site was identified, and approvals obtained from the U.S. Army Corps of Engineers and the Massachusetts Department of Environmental Protection. Responsible for review of Contractor's submittals for compliance with project permits and specifications.

River's Edge Mixed Use Development, Preotle, Lane & Associates, Ltd., Medford, Malden and Everett, MA, 2005 to 2018. Provided wetland mitigation design and wetland mitigation post-construction monitoring for the 32-acre River's Edge mixed-use business park. This regional redevelopment project will include 1.8M-sf of commercial and residential buildings along the Malden River. Phase 1 consists of 220 units of residential housing and 441,600 square feet of new office/research and development space in three buildings on 30 acres. The project created 7.6 acres of public parkland and restored 1.7 acres of wetlands along the Malden River. Assisted in obtaining state approvals from the DEP Wetlands and Waterways Divisions, MEPA and the Massachusetts Water Resources Authority. An Individual Water Quality Certification was also obtained from the DEP Wetlands Division for the wetland fill and wetland mitigation plan. Assisted with MEPA documentation including the Environmental Notification Form (ENF), EIR, and numerous Notices of Project Change. Federal permits included US Army Corp of Engineers (ACOE) Individual Permits for the wetland fill, mitigation design and the removal of an abandoned barge that was located within the Federal Channel of the Malden River. Barge removal and all work within the Federal Channel of the river was closely coordinated with the ACOE Navigation Division. Senior Project Scientist responsible for the development of the Project's Stormwater Pollution Prevention Plan (SWPPP) pursuant to the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities.

MWRA Compliance Sampling, Sterling Suffolk Racecourse, LLC, Suffolk Downs East Boston and Revere, MA, 2012 to 2020. Responsible for conducting monthly compliance sampling of process wastewater for a Massachusetts Water Resources Authority Sewer Use Discharge Permit issued to the facility. Sampling includes obtaining manual composite samples for 13 parameters and grab samples for two parameters.

Stormwater Permitting and Compliance Services, Sterling Suffolk Racecourse, LLC, East Boston and Revere, MA, 2008 to 2020. Lead Permitting Specialist for obtaining a National Pollutant Discharge Elimination System (NPDES) Individual Permit for stormwater discharges associated with a Concentrated Animal Feeding Operation at Suffolk Downs Racecourse. Responsible for developing a Nutrient Management Plan (Stormwater Pollution Prevention/Management Plan) for the approximately 1,000-horse facility, performing wet and dry weather sampling of eight outfalls, data compilation, and negotiations with the US Environmental Protection Agency (EPA) and the Massachusetts DEP.

Longfellow Bridge Rehabilitation Project, MassDOT Highway Division, Boston/Cambridge, MA, 2013 to 2018. Environmental Permitting Lead for the Longfellow Bridge Restoration Design/Build Project. Oversaw compliance with federal, state and local environmental permits, including: Massachusetts Wetlands Protection Act Order of Conditions (OOC) issued by the Boston Conservation Commission; Massachusetts Wetlands Protection Act Superseding Order of Conditions (SOC) issued by the Massachusetts Department of Environmental Protection (MassDEP); United States Army Corps of Engineering Permit; MassDEP's Chapter 91 Licenses for the pedestrian bridge in Boston and stormwater feature in Cambridge; and U.S. Coast Guard permit for work within the navigational channel. Work also included the development of a construction term Stormwater Pollution Prevention Plan (SWPPP) pursuant to the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities, and the development of a Water Quality Monitoring Plan for monitoring the pH of the Charles River during masonry work conducted within the splash zone of the bridge piers. Conducted weekly and post-storm inspections of the project area and submitting monthly compliance reports to MassDEP. Providing environmental compliance reviews and sign-offs of project design documents.

Belle Isle Marsh Boardwalk, Sterling Suffolk Racecourse, LLC, East Boston, MA, 2013 to 2017. Project Scientist responsible for site selection of an approximately 100-foot long helical pile supported boardwalk over a freshwater wetland at the Massachusetts Department of Conservation and Recreation's (DCR) Belle Isle Marsh Reservation. Prepared an Environmental Notification Form pursuant to the Massachusetts Environmental Policy Act, a DEP Water Quality Certification application, a Notice of Intent in accordance with the Massachusetts Wetlands Protection Act, and a DCR Construction/Access Permit application, Provided environmental compliance and construction oversight during project implementation.

Wetland Delineation, TransCanada Energy LLC, Burrillville, RI, 2015. Project Scientist responsible for wetland delineation and classification for the approximately 60-acre site.

Wetland Delineations, Soltage, LLC, Various Sites Eastern MA, 2015. Project Scientist responsible for wetland delineation for various solar array projects to be located at landfills in East Bridgewater, Randolph and Plainville.

I-93 and Route 110/Route 113 Interchange Reconstruction Project, MassDOT Highway Division, Methuen, MA, 2008 to 2018. Wetlands delineation for the widening of I-93 and the construction of a new interchange, six interchange ramps, and improved bike/pedestrian facilities. Project included a variance from Massachusetts Wetlands Protection Act Regulations for design of a 13-acre wetland mitigation area to compensate for unavoidable project impacts. The plan featured 5.3 acres of Bordering Vegetated Wetlands creation/restoration including 2.4 acres of forested habitat, 1.7 acres of scrub/shrub habitat, 1.1 acres of emergent habitat, 0.1 acres of riverine habitat, and 555 linear feet of recreated waterway bank.

I-95/Whittier Bridge Improvements, MassDOT Highway Division, Newburyport, Amesbury, Salisbury, MA, 2009 to November 2018. Supported the EIR for the reconstruction of a 4-mile segment of I-95 and the replacement of Whittier Bridge over the Merrimack River. Whittier Bridge is one of 14 projects selected nationwide by the Obama Administration to be expedited through the permitting and environmental review process. Involved in preparation of MEPA ENF, a combined NEPA EA and a MEPA EIR, and permits, leading to a design/build RFP package. Key issues relating to the joint filings included rare species, wetlands, historic and archaeological resources, and water supply protection. EA/EIR and permit applications were prepared under a tight timeframe to meet the Accelerated Bridge Program (ABP) schedule.

Spot Pond Preliminary Design and Owner's Representative Services, MWRA, Stoneham, MA, 2010 to 2012. As part of the CDM Project Team, assisting with wetlands permitting in support for the design/build of the Spot Pond Storage Facility.

Stormwater Improvement Project, Sterling Suffolk Racecourse, LLC, Suffolk Downs East Boston and Revere, MA, 2011 to 2012. Owner's Representative for the construction of the approximately $3.2 million stormwater improvement project including over 5,000 linear feet of process water drains, 15,000 linear feet of storm drain, 4,200 linear feet of force main, a 307,000 cubic foot holding pond, and pump station.

Draft Environmental Impact Report Framingham Campus Master Plan, Genzyme Corporation, Framingham and Southborough, MA, 2011. Project Scientist responsible for the preparation of a DEIR for Genzyme's Framingham Campus Master Plan which includes 397,000 square feet of research and development space, 164,000 square feet of manufacturing space, 360,000 square feet of office space, demolition of 186,500 square feet of existing buildings, and 2,390 new parking spaces.

Reconstruction of Route 7, ConnDOT, Danbury and Ridgefield, CT, 2005 to 2012. Project Scientist for mitigation of roadway widening impacts consisting of approximately 3.5 acres of wetland creation, enhancement and restoration related to the reconstruction of Route 7 between Route 35 and Starrs Plain Road. Provided inspection of all mitigation site planting operations and plantings. Services also included providing documentation per permit conditions and commitments and preparing monitoring reports to the USACE.

US Route 7 Bypass, Brookfield, ConnDOT, CT, 2006 to 201. Project Scientist for environmental planning services and regulatory permitting assistance for the mitigation of roadway impacts involving approximately 3.60 acres of wetland creation, enhancement and restoration, and 230 linear feet of riparian enhancement.

Officers Training Center Project, United States Navy, Naval Station Newport, RI, 2010. Project Scientist responsible for wetland delineation related to a design-build contract for a 133,700 gsf, 3-story, $76M barracks building that will house 464 OTC students in 116 "2+2" room modules for the NAVFAC Mid-Atlantic division.

Union Point, South Shore Tri-Town Development Corporation, Weymouth, Rockland, and Abington, MA, 1999 to 2010. Performed wetland delineation associated with the redevelopment of the 1,450-acre South Weymouth Naval Air Station, and supported the EIR and permitting for infrastructure improvements along a 5-mile section of Route 18.

Greenbush Commuter Rail Design/Build Project, MBTA, South Shore, MA, 2002 to 2010. Project Scientist responsible for coordinating environmental permitting and natural resource impact evaluations for the 18.5-mile rail construction project. Provided support to MBTA in acquiring wetland and endangered species permits, and securing NPDES stormwater permits for the design/builder. Lead Scientist for impact analysis associated with increasing tidal flushing to the approximately 68-acre Home Meadows complex in Hingham. Provided design and construction supervision of 4.6 acres of freshwater wetland and 6.5 acres of salt marsh creation, and identified adverse effects on aquatic resources including erosion control, sediment retention from surface water, cofferdam installation and removal and dewatering activities. Supervised wetland resource area studies, including removal of wetland soils from areas to be filled, storage of excavate, transportation of soils and plant materials, and planting and monitoring of wetland replication areas. Since permits were obtained prior to final design for this design/build project, also responsible for reviewing the final design and certifying permit compliance. Prepared multiple Stormwater Pollution Prevention Plans (SWPPP), and on a routine basis, provided stormwater pollution prevention training to employees of Cashman/Balfour Beatty (CBB) and associated subcontractors. Oversaw CBB's implementation of erosion and sediment control throughout the 3.5-year construction period.

Blue Hills Covered Storage, MWRA, Quincy, MA, 1997 to 2010. Prepared an Expanded Environmental Notification Form and the Single and Final Environmental Impact Reports outlining the potential impacts of the 20-million-gallon storage system in the Blue Hills Reservoir within the Blue Hills Reservation. Responsible for preparing a US Army Corps of Engineers Individual Permit application, DEP Water Quality Certification application, and other applications in accordance with the Massachusetts Wetlands Protection Act, including a Notice of Intent, Request for Superseding Order of Conditions, and Request for Variance. Reviewed contractor's

design documents, including the SWPPP for the approximately 18-acre construction site. Also provided expert witness testimony on behalf of the MWRA in defense of a Massachusetts Wetland Protection Act Variance issued by the DEP for the project. Testimony included preparation of pre-filed direct testimony, preparation of written rebuttal to appellant's pre-filed written testimony, and verbal testimony in response to appellant's cross-examination. Testimony focused on wetland resource area identification, impact assessment and mitigation alternatives.

Federal Correctional Institution, US Department of Justice, Bureau of Prisons, Berlin, NH, 2007 to 2009. As part of the Bell-Heery Joint Venture, Lead Scientist for the design of four wetland restoration areas and four vernal pools to provide mitigation for impacts to wetlands associated with the construction of the correctional facility. Responsible for annual post construction monitoring of the wetland mitigation areas to assess long-term viability and the project's impact to wetlands. The 700-acre site includes a medium security facility, a minimum security camp, a utility/warehouse building complex, a 16-station firing range and training center, a water pump station, a wastewater processing system, a 3,600-foot access road and off-site transportation improvements.

Expert Witness Testimony for Land Taking, MBTA, Norfolk, MA, 2009. Provided expert witness testimony in Norfolk Superior Court on behalf of the MBTA in defense of a land taking claim. Testimony focused on wetland resource area identification, including degraded/non-degraded riverfront area and maximum buildable area.

Gillette Stadium and Economic Development Area, New England Patriots, Foxborough, MA, 1999 to 2007. Developed application materials and multiple SWPPPs for the NPDES General Permit for Stormwater Discharges from Construction Activities and implementation of erosion and sediment controls. Lead Scientist responsible for the relocation and day lighting of approximately 1,000 feet of the Neponset River, including characterization of existing conditions and construction supervision. Completed MEPA review and all environmental permitting for the 68,000-seat stadium, and parking and infrastructure improvements to the 300-acre stadium site. Conducted MEPA review using an expanded ENF and single EIR, and received a Phase One Waiver for stadium structure construction.

Natural Resource Inventory and Stewardship Plan for Fresh Pond Reservation, City of Cambridge, Cambridge, MA, 2002. Provided support for permitting and environmental services associated with a Natural Resource Inventory and Stewardship Plan for the Fresh Pond Reservation in Cambridge. The purpose of the project was to catalogue the natural resources at the reservation, identify issues that are potentially impacting the resources, and provide recommendations for protection or enhancement of the resources. Resources investigated included vegetation cover types, wetlands, streams and shorelines, wildlife and endangered and threatened species.

Southbridge Business Center, Southbridge, MA, 2002. Served as the permitting lead responsible for the development of permit application materials in compliance with the NPDES Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial activities. The application and compliance materials addressed site inventory, discharges, pollution prevention measures, sampling, compliance inspections and record keeping requirements for the 14 buildings and 22-outfall site. Sectors addressed in the MSGP application and compliance materials included sectors X (Printing and Publishing), Y (Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries), AA (Fabricated Metal Products), and AC (Electronic, Electrical, Photographic and Optical Goods).

Proposed Stockbridge–Munsee Casino, Trading Cove, Sullivan County, NY, 2001. Project Scientist responsible for wetland delineation on the approximately 333 acre site and preparation of a Wetland Delineation Report submitted to the U.S. Army Corps of Engineers New York District.

Relocation of Route 57, MassDOT Highway Division, Agawam and Southwick, MA, 1998 to 2000. Responsible for the technical aspects of wetlands replication and environmental permitting for the relocation of Route 57. This project was to include 2.5 miles of four-lane divided highway, three major bridges, an animal passageway, noise barriers and a diamond ramp. The wetland impacts were to be among the largest proposed in the state.

Preliminary Screening Report, Water Supply Plan, Connecticut Water Department, Bristol, CT, 1999. Identified potential impacts to the natural and cultural environment associated with four of the Water Department's Water Supply Plan alternatives. The assessment included field inspection and review of existing information. Under review were wetlands and water quality, floodplain, wildlife, air quality, noise and traffic as well as historic, archaeological and cultural considerations.

Close, Jensen and Miller, PC, Wethersfield, CT, 1998. Environmental Scientist for evaluation of a proposed truss bridge construction and staging site within the Connecticut River floodplain. Performed an existing data search and wetland resource area investigations.

Yearly Operational Plan for Vegetation, MassDOT Highway Division, MA, 1998. Environmental Scientist for the preparation of a Yearly Operational Plan for the maintenance and control of vegetation within the Authority's right-of-way. Responsible for the designation of vegetation control methods, design and implementation of flagging methods to designate sensitive areas within the right-of-way, and identification of sensitive areas within the right-of-way.

Environmental Impact Report and Permitting, I-93/Route 129 Interchange Project, MassDOT Highway Division, Wilmington and Reading, MA, 1997 to 1998. Project Scientist for the Environmental Impact Report and permitting for the I-93/Route 129. This project was proposed to impact over one acre of wetlands and require a variance from the DEP, as well as an Individual Permit from the USACE. Particularly sensitive issues included project's impact on adjacent town water supplies and potential drainage pattern changes to the Ipswich River, which has become stressed from excessive water withdrawal.

Wastewater Facility Plan, Metropolitan District Commission, West Boylston and Holden, MA, 1995 to 1998. Environmental Scientist responsible for review of the potential adverse and beneficial impacts of the project's approximately 72 miles of sanitary sewer and 23 pumping stations on the watershed of the Wachusett Reservoir. Review and compilation of additional information regarding the alternatives and their proposed impact on secondary growth, traffic and transportation, land use, recreation, and open space. Of particular concern was the protection of the Wachusett Reservoir and its watershed. Preparation of federal, state and local permits.

Wetland Restoration Plan, US Postal Service (USPS), MA, 1997. Environmental Scientist for the restoration of approximately 15,000 square feet of altered vegetated wetland. Responsible for the characterization of soil and vegetation of the adjacent undisturbed wetland areas and the development of a wetland restoration plan, including specification of soils and vegetation. Supervised the implementation of the restoration plan, including dewatering of soils and vegetation planting.

Environmental Assessment, USPS, Northeast Area, US, 1996 to 1997. Environmental Scientist for assessment impacts associated with the implementation of alternative fueled vehicles pursuant to the National Environmental Policy Act. Researched and reported on various cost impacts such as conversion, maintenance, operational and infrastructure costs. Reviewed and assessed the feasibility of various alternative technologies including compressed natural gas, liquid petroleum gas, methanol-based fuels, electric technology, and reformulated gasoline fuels. Planned and coordinated task force meetings and document preparation.

Brightman Street Bridge Replacement Project, MassDOT Highway Division, Fall River and Somerset, MA, 1995 to 1997. Environmental Scientist for environmental permitting for the relocation of the Brightman Street Bridge. Responsible for the review of natural resources within the project area, including soils, vegetation and wildlife. Evaluation of impacts to inland and tidal resources and preparation of permit applications. Responsible for the mitigation design, including site selection based on soil and hydrologic characteristics; and excavation, soil and vegetation specification.

Walnut Hill Water Treatment Plant, MWRA, Marlborough MA, 1994 to 1997. Environmental Scientist responsible for evaluations of site alternatives for the MWRA's water treatment facility. Conducted soil, vegetation, and resource area investigations for three alternative sites ranging from 120 to 235 acres. This project included a natural resource impact evaluation of the proposed 60-acre facility in addition to an approximately 12-mile sewer easement. In addition, prepared permits for geotechnical borings and construction of the sewer line.

Included in the permitting process was the development of a SWPPP and mitigation plans for the proposed impacts to Class A waters.

Compliance Analysis, MBTA, Boston, MA, 1996. Environmental Scientist for the evaluation and cost of compliance analysis of biodiesel fuel for buses to meet the requirements of 40 CFR 85.1403. Responsibilities included project coordination, research, development of alternatives, review of sub-consultant materials, and report writing/compilation.

Vegetated Wetlands Delineation Workshop, MADEP, East Hampton, MA, 1996. Instructed on the interpretation, discussion and presentation of the revised (June 1995) state methodology for delineating bordering vegetated wetlands. Specific discussions included review of criteria to be used for the delineation and the characterization of vegetative, soil, and hydrologic indicators of wetlands.

Combined Sewer Overflow Project, City of Fall River, Fall River, MA, 1996. Environmental Scientist for the development of a wetland restoration plan associated with the Combined Sewer Overflow project. Responsibilities included an impact evaluation, specification of soil and vegetation, construction procedures, an erosion and sediment control plan, and scheduling for the mitigation of this 0.5-acre project.

Environmental Permitting, MassDOT Highway Division (formerly Massachusetts Turnpike Authority), Brimfield, MA, 1996. Environmental Scientist for the permitting of a maintenance vehicle ramp. Conducted impact evaluation, wetland mitigation planning, permitting process, and regulatory coordination.

South Shore Plaza Expansion, Corporate Property Investors, Braintree, MA, 1995 to 1996. Environmental Scientist for the permitting associated with a retail development and its approximately 1.52-acre impact to federal jurisdictional wetlands. Responsible for an impact evaluation, according to the US Army Corps of Engineers New England Division's Highway Methodology Workbook Supplement (1995). Developed a wetland mitigation plan consisting of construction sequencing and timing, erosion and sediment control, mitigation area siting, recommended vegetation and soil materials.

Environmental Assessment, USPS, MA, CT, and NY, 1994 to 1996. Environmental Scientist for the siting of several new postal facilities. Responsibilities included resource area identification, impact evaluation, mitigation planning, hazardous waste site assessments, and report preparation.

Biological Assessment, Massachusetts Port Authority, Shawsheen River, Hanscom Air Force Base, Bedford, MA, 1995. Environmental Scientist for the biological assessment of approximately one-half mile of the Shawsheen River. This assessment was conducted following methods outlined in the US Environmental Protection Agency's Rapid Bioassessment Protocol I – Benthic Macro Invertebrates, performed to evaluate the apparent health of the ecosystem. The assessment included the characterization of river substrate and banks, aquatic and terrestrial vegetation, water quality, aquatic macro invertebrate populations, and habitat use by other wildlife species.

I-495/ I-90 Interchange Improvements, MassDOT Highway Division, 1995. Environmental Scientist responsible for construction supervision of this interchange improvement project which added lanes exit and entrance ramps at the toll plaza. Supervised an erosion and sediment control plan adjacent to a designated Massachusetts Area of Critical Environmental Concern.

New England Regional Soils Monitoring Project, 1992 to 1995. Soil Scientist responsible for site selection of experimental plot locations, involving the identification of soil drainage classes, parent material, and associated landforms. Produced detailed standard Natural Resource Conservation Service (NRCS) soil descriptions. Collected and analyzed soil samples according to standard NRCS procedures. Measured and interpreted in situ soil parameters such as redox potential, matric potential, temperature, groundwater level, and groundwater iron content. Described and documented vegetation characteristics according to methods stated in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.

Massachusetts Title 5 Site Evaluators Training Course, 1993. Soil Scientist responsible for the discussion and interpretation of morphological and physical properties of soils and their relation to the effectiveness of on-site sewage disposal systems.

MBTA Vegetation Management Plan and Yearly Operational Plan, 1992. Environmental Scientist for the Vegetation Management Plan (VMP) and Yearly Operational Plan (YOP). VMP responsibilities included the designation of methods and rationale for the control of vegetation, development of operational guidelines for applicators relative to herbicide use, development of a remedial plan to address spills and related accidents, and the development of an integrated pest management program. YOP responsibilities included the designation of vegetation control techniques, identification of target vegetation, development of flagging methods to indicate sensitive areas within the right-of-way, and procedures and locations for handling, mixing, and loading of herbicides, and oversight of herbicide applications.

Metropolitan District Commission, Belchertown, MA, 1986. Assistant Wildlife Biologist whose responsibilities consisted of wildlife management practices, habitat classification mapping. Controlled nuisance wildlife, such as beaver and deer. Performed small mammal census and avian surveys as well as analysis of forest cutting damage.

Student Conservation Association at Moosehorn Wildlife Refuge, Baring, ME, 1985. Performed wildlife management practices including restoration of broken forest structure and maintenance of migratory waterfowl impoundments. Invoked capture, banding, and telemetry of woodcock. Conducted rehabilitation of injured birds and supervised Youth Conservation Corps workers.

TETRA TECH

Kinsale McGrath

Environmental Scientist

EXPERIENCE SUMMARY

Ms. McGrath is an Environmental Scientist at Tetra Tech who supports environmental assessment and local, state, and federal permitting for a variety of public and private client projects.



Education

BS, Environmental Science, Worcester State University, 2019

Area of Expertise

Environmental assessment and permitting

Registrations/ Affiliations

Society of Wetland Scientist

Massachusetts Association of Conservation Commissions (MACC)

Association of Massachusetts Wetland Scientists (AMWS)

Training/Certifications

Hazardous Waste and Emergency Response (HAZWOPER), 40-Hour OSHA Training

Construction Safety and Health, 10-Hour OSHA Training

Office

Marlborough, MA

Years of Experience

Three

Years within firm

Three

Contact

Kinsale.McGrath@tetratech.com

RELEVANT EXPERIENCE

I- 90 Superstructure Replacements Woodland, Cordaville, Parkerville, and Flanders Roads, MassDOT Highway Division, Southborough and Westborough, MA, 2020 to Present. The "Acceler-8" project seeks to replace eight bridges on I-90. Assisted with wetland delineation and completion of Stormwater Pollution Prevention Plan (SWPPP) pursuant to the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities. Responsible for collection of wetland delineation points and entering data into the Collector Application for ArcGIS. Responsible for filing MassDEP WM15-NPDES Notice of Intent Application.

MassDOT Highway Division, NLEB Presence/Absence Habitat Assessment and Detector Deployment, Various Road and Bridge Improvement Projects, MA, 2021 to Present. Assist with and deploy detectors, conduct habitat assessments, and bridge inspections at multiple location throughout the state according USFWS Indiana Bat Summer Survey Guidelines. Summarized and wrote technical memorandums.

I-495/I-90 Interchange Improvements, MassDOT Highway Division, Hopkinton and Westborough, MA, 2020 to Present. Wetland Scientist for improvements to the I-495/I-90 interchange within an Area of Critical Environmental Concern (ACEC) and impacts to state designated Outstanding Resource Waters. Tetra Tech evaluated natural resources of the project area, confirmed wetland delineation, inventoried vernal pools (both previously certified and potential), prepared environmental review and permitting documents, and continue contribution to the development of the design of the highway and bridge preferred alternative. Responsible for water level monitoring in wetlands and preparing a response matrix for MassDEP's request for additional information.

Redevelopment of Former Quincy Hospital, FoxRock Properties, 114 Whitwell, Quincy, MA, 2020 to Present. Responsible for assisting with the preparation of the Stormwater Pollution Prevention Plan (SWPPP) pursuant to the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities. Responsible for filing the EPA NETCGP: NET-NPDES Stormwater Construction General Permit.

200 Libbey Industrial Parkway, Weymouth, MA FoxRock 200 Libbey, LLC, 2020 to Present. Responsible for filing MassDEP WPA Form 3 Notice of Intent and the Weymouth Wetlands Protection Ordinance and assisting with preparing the Notice of Intent (NOI) for work within the buffer zone to bordering vegetated wetland (BVW) and bank. Assisted with wetland delineation and data collection for the Collector Application for ArcGIS.

I-90 Allston Multimodal Project, MassDOT Highway Division, Allston/Brighton, MA, 2020 to Present. Environmental Scientist for the $1.9B I-90/Allston Multimodal Improvement Project. Tetra Tech is providing conceptual development, traffic analysis, environmental documentation and permitting, and highway and bridge design services. Prepared a matrix that outlines graphic submittal statuses and creating NEPA DEIS Chapter Review Summary submittals outline. Responsible for quality assurance and quality control for response to comments made on the Draft Environmental Impact Report (DEIR) and Notice of Project Change. Responsible for quality assurance and quality control on Hazardous Material Assessment.

Sohier Street, Route 3A, Cohasset, MA, 2020. Assisted with wetland delineation and responsible for data collection on the Collector Application for ArcGIS and on the Ecobot App.

River's Edge Mixed Use Development, Preotle, Lane & Associates, Ltd., Medford, Malden and Everett, MA, 2020. Responsible for creating ArcGIS file showcasing vegetation delineation in a wetland mitigation area associated with MassDOT's Woods Memorial Bridge project.

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DOCUMENT A00871

UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED FORM FOR CATEGORICAL EXCLUSION

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U.S. Department of Transportation
Federal Highway Administration

APPROVED FORM FOR CATEGORICAL EXCLUSIONS

Processing Form for Categorical Exclusions

(Refer to the *CE Guide* for detailed instructions to complete this form)
CE Form Updated March 2022

A. General Project Information

MassDOT Project Number: 609255	**Route or Road Name:** School Street
Project Name: Mansfield- Multimodal Accommodation on School Street, from Spring Street to West Street	
Municipality(ies): Town of Mansfield	**MassDOT Highway District(s):** 5
Project Proponent: Town of Mansfield	
Project Cost and Scheduled Funding Year(s): $4,343,951.98; 2025	
Project Manager or Preparer: Aidee Cira, Project Manager; Matthew Saniuk, Preparer	

B. Purpose and Need

Need for Proposed Action: *Identify and describe the transportation deficiencies, problems and/or concerns that need to be addressed by the proposed action*

This segment of School Street in Mansfield currently lacks suitable pedestrian and bicycle accommodation. The sidewalk on the east side of School Street is non-ADA compliant and deteriorated. No pedestrian accommodations are provided on the west side of School Street. In addition, no bicycle accommodations are provided throughout the project limits. Other existing deficiencies include a fair pavement condition and faded pavement markings.

Purpose of Proposed Action: *State the desired transportation outcome of the proposed action*

The purpose of this project is to improve multimodal accommodations along this segment of School Street.

C. Project Description

Project Location and Limits: *Define the limits of the proposed project, including applicable municipalities and counties where the project is located (Attach corresponding Locus Map)*

MassDOT in conjunction with the Town of Mansfield propose multimodal improvements along a segment of School Street from Spring Street to West Street for a total project length of approximately 2,500 feet (See attached Locus Map).

Existing Conditions: *Describe the current transportation infrastructure conditions, surrounding land uses, and any relevant environmental resources within or adjacent to the project limits*

School Street is functionally classified as an urban principal arterial aligned primarily in the north-south direction. Within the project limits, School Street consists of one travel lane in each direction. A right-turn only lane is added as the roadway approaches West Street. There is an old, deteriorated sidewalk along the west of Spring Street to West Street. There are no

designated accommodations for bicyclists. The surrounding land use is primarily residential with a cemetery located on the east side of the roadway just south of Coral Street.

Proposed Improvements: *Describe the proposed scope of work within the project limits and how it accomplishes the identified purpose and need, including any secondary project goals*

Proposed improvements include widening the existing roadway cross section to accommodate an approximately 5-foot sidewalk and 5-foot bicycle lane on both sides of School Street from Spring Street to Bliss Avenue. From Bliss Avenue to West Street the roadway cross section will be widened to accommodate an 8.5-foot shared use path on both sides of Spring Street. Intersection improvements at the School Street/Spring Street intersection are proposed which will tighten the northbound approach to reduce the ability of northbound vehicles to go around vehicles turning right onto Spring Street. Other proposed improvements include pavement rehabilitation, installation of new curbing, upgrades to pavement markings and signage, and improvements to the drainage system.

D. No Build and Other Dismissed Alternatives

Describe the No-Build Alternative and any other dismissed alternative(s) to the proposed action, including rationale for each dismissal.

A no build alternative was discussed and ultimately dismissed for this project. In a no build scenario the existing pedestrian facilities would continue to deteriorate and remain non-ADA compliant. In addition, the School Street corridor would continue to lack any bicycle accommodations.

E. Environmental Review, Mitigation Measures, and Agency Consultation

1. Wetlands and Waters of the United States (*responses to both questions required)*

a. Are there any wetlands or waters of the United States within the project area that would be temporarily or permanently impacted by the project?
☒**NO**
☐**YES**, *describe potential impacts, required federal, state, and local permitting and proposed mitigation below*:

b. Does the project involve the construction or modification of a bridge or causeway across any navigable waters of the United States?
☒**NO**
☐**YES**, *discuss whether any permit or authorization is required from the U.S. Coast Guard*:

2. Threatened and Endangered Species / Essential Fish Habitat (*responses to both questions required)*

a. Are there any federally listed endangered or threatened species or designated critical habitat potentially present within the project area?
☐**NO**

☒**YES**, *identify species and discuss any consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under Section 7 of the Endangered Species Act (Attach corresponding consultation documentation)*.

U.S. Fish and Wildlife Service
According to the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) online mapping tool, the Northern long-eared bat (NLEB) (Myotis septentrionalis) may be found within the project limits. If additional cutting is proposed by the Contractor that is outside of the current scope, additional review is required by the MassDOT Highway Division's Environmental Services Section. The USFWS provided an automated concurrence that the Action is consistent with activities analyzed in the Programmatic Biological Opinion (PBO) for the NLEB and therefore the project has "no effect" the endangered NLEB on December 20, 2023.

National Marine Fisheries Service
MassDOT reviewed the project action area within the Greater Atlantic Region ESA Section 7 Mapper, and it was determined that no NMFS-protected species have been identified in the project area.

b. Are there any Essential Fish Habitat (EFH) mapped for the project area?
☒**NO**
☐**YES**, *identify species and discuss any consultation with the National Marine Fisheries Service under the Magnuson-Stevens Fishery Conservation and Management Act (Attach corresponding consultation documentation)*

3. <u>Historic Resources</u>

a. Are there any historic or known archaeological resources within the project's Area of Potential Effect that are listed in or eligible for listing in the National Register of Historic Places?
☐**NO**
☒**YES**, *identify resource(s) below*:

Spring Brook Cemetery
The NR-listed Spring Brook Cemetery was founded circa 1790 and is still in use. The cemetery is the largest in Mansfield at 22 acres and contains approximately 3,400 stones. The oldest part of the cemetery is located along Spring Street, but most of the cemetery was laid out in the second half of the 19th century as a memorial park and the stone art, markers, and cemetery access roads generally reflect this era. The former Roland Green School was located at School Street and Coral Street before it burned for the final time ca. 1935. More recent headstones are located in the section of the cemetery near School Street.

<u>Whether "Yes" or "No" is checked above</u>, please indicate which project clearance or effect determination was issued for the project under Section 106 of the National Historic

Preservation Act, including discussion of any applicable consultation with the State Historic Preservation Officer, Federally Recognized Tribes, and other consulting parties. (*Attach corresponding Section 106 compliance documentation*).

MassDOT has reviewed this project under Section 106 of the National Historic Preservation Act of 1966 and has determined that this project will have No Adverse Effect on properties that are listed or eligible for listing in the National Register of Historic Places. MassDOT's Cultural Resources Unit (CRU) staff submitted a recommendation to the State Historic Preservation Officer (SHPO) on October 16, 2023, that this project will have No Adverse Effect on properties that are listed or eligible for listing in the National Register of Historic Places. SHPO concurred with CRU staff's recommendation on November 10, 2023.

4. <u>Section 4(f) / Section 6(f) Resources</u> (*responses to both questions required)*

a. Are there any properties or facilities protected by Section 4(f) of the DOT Act of 1966 that would be impacted by the project?

☐**NO**

☒**YES**, *identify the applicable resource(s) and discuss any potential impacts, including proposed mitigation measures (if applicable), and coordination with required official(s) with jurisdiction (Attach all documented Section 4(f) impact determinations with sign offs from the applicable official(s) with jurisdiction)*.

This project requires one permanent easement and four temporary occupancies from the NR-listed Spring Brook Cemetery. The permanent easement (Parcel E-1) totaling 30 square feet is required for sidewalk reconstruction. The temporary occupancies (Parcel TE-5, TE-7, TE-9, and TE-10) totaling 3,241 square feet are required to facilitate grading and the placement of loam and seed.

On November 10, 2023, SHPO determined that the proposed "use" of Spring Brook Cemetery meets the criteria of a de minimis impact. On March 29, 2024, FHWA concurred with SHPO's determination that the proposed "use" of Spring Brook Cemetery meets the criteria of a de minimis impact.

b. Will the project impact any public park or recreation facility protected by Section 6(f) of the Land and Water Conservation Fund Act?

☒**NO**

☐**YES**, *discuss the consultation process with the National Parks Service, and attach any corresponding documentation*.

5. <u>Noise</u>

a. Is the project classified as a Type I action as defined under 23 CFR 772.5?

☒**NO** *(proceed to Item 6)*

☐**YES**, *describe findings of the Traffic Noise Analysis, including any proposed noise abatement measures below (Attach corresponding Traffic Noise Analysis Report)*.

6. Right-of-Way Requirements

a. Does the project require the acquisition of right-of-way or easements?

☐**NO** *(proceed to Item 7)*

☒**YES**, *indicate whether acquisitions and/or easements will result in any commercial or residential displacements, or substantial adverse impacts on abutting property (Attach necessary right-of-way plan sheets).*

This project will require 2 permanent easement and 35 temporary occupancies. No right-of-way acquisitions are within mapped Environmental Justice communities. No long-term adverse effects on the activities or functions of the businesses or individuals are anticipated. Acquisition of right-of-way shall be in accordance with the Uniform Relocation Assistance and Property Acquisitions Policy Act of 1970 (Right-of-Way Plans can be found in the appendix).

7. **Environmental Justice**

a. Are there any Environmental Justice populations designated as minority, low-income or limited English proficient within or near the project area?

☒**NO** *(proceed to Item 8)*

☐**YES**, *discuss whether the project may have disproportionately high and adverse impacts on these identified populations below (Attach Environmental Justice/Community Impact Assessment Report, if applicable)*.

8. Other Environmental Considerations *This section should discuss any other potential environmental impacts or concerns not covered in the previous sections*

No other environmental impacts are anticipated.

F. Public Involvement

Describe prior and planned opportunities for public participation during the project planning and development process, and any concerns and issues that have been generated through public comment to date.

A virtual design public hearing was held on April 11, 2023. Outreach to local and state agencies was also conducted in MassDOT's Early Environmental Coordination procedure. Comments or concerns have been raised by public comment can be summarized below:

- Question on the specific project limits.
- Question about the proposed ROW impacts.

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G. Environmental Review and Permitting

List all federal, state, and local environmental reviews and permits required for the project, and the status of approvals

Permit/Review	Agency	Status
Section 7 of the ESA- USFWS	U.S. Fish and Wildlife Service	Cleared "No Effect" on the NLEB (12/20/23)
Section 7 of the ESA- NOAA	NOAA Fisheries	Cleared "No Species Present" (4/3/24)
Section 106 of the NHPA	Massachusetts State Historic Preservation Officer	Concurrence of "No Adverse Effect" (11/10/23)
Section 4(f) of the DOT Act Historic 4(f)	FHWA	Proposed "use" meets the criteria of de minimis impact (3/29/24)
Massachusetts Wetland Protection Act Request for the Determination of Applicability	Town of Mansfield Conservation Commission	Negative Determination Issued (3/25/24)

Appendix A. Supporting Documentation

List all supporting documentation that will be attached to the CE Form

- Locus Map
- Section 7 of the Endangered Species Act IPAC No Effect Concurrence
- Section 7 of the Endangered Species Act NOAA No Species Present
- Section 106 of the National Historic Preservation Act, No Adverse Effect Finding
- Section 4(f) of the DOT Act Historic de Minimis Impact Determination
- Right-of-Way Plans
- Virtual Design Public Hearing Transcript

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Categorical Exclusion (CE) Determination

Starting with Section 1, answer the questions by checking Yes or No.

After each of the following sections, there will be instructions that direct the preparer to continue to the next appropriate section of the checklist. The preparer should refer to *MassDOT's Guide for processing Categorical Exclusions* for further information and instructions on completing this checklist.

SECTION 1. CATEGORICAL EXCLUSIONS		
1. Is project on the list of CEs included under23 CFR 771.117(c) or (d)?	☐**NO**	☒**YES**

If "Yes," the preparer should select the appropriate Categorical Exclusion (CE) that is being considered for the proposed action and then complete Section 2 below. If "No," the preparer should complete Section 2 below.

Activity Listed in 23 CFR 771.117(c) (The "C" List)	
1 ☐	Activities that do not involve or lead directly to construction, such as planning and research activities; grants for training; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions which establish classes of highways on the Federal-aid highway system.
2 ☐	Approval of utility installations along or across a transportation facility.
3 ☐	Construction of bicycle and pedestrian lanes, paths, and facilities.
4 ☐	Activities included in the State's Highway Safety Plan under 23 U.S.C. 402.
5 ☐	Transfer of Federal lands pursuant to 23 U.S.C. 107(d) and/or 23 U.S.C. 317 when the land transfer is in support of an action that is not otherwise subject to FHWA review under NEPA.
6 ☐	The installation of noise barriers or alterations to existing publicly owned buildings to provide for noise reduction.
7 ☐	Landscaping.
8 ☐	Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.
9 ☐	The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 U.S.C. 5121): *i)* Emergency repairs under 23 U.S.C. 125; and *ii)* The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or bus transfer

	station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action: a) Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and b) Is commenced within a 2-year period beginning on the date of the declaration.
10 ☐	Acquisition of scenic easements.
11 ☐	Determination of payback under 23U.S.C. 156for property previously acquired with Federal-aid participation.
12 ☐	Improvements to existing rest areas and truck weigh stations.
13 ☐	Ridesharing activities.
14 ☐	Bus and rail car rehabilitation.
15 ☐	Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.
16 ☐	Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.
17 ☐	The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities that themselves are within a CE.
18 ☐	Track and railbed maintenance and improvements when carried out within the existing right-of-way.
19 ☐	Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.
20 ☐	[Not Applicable]
21 ☐	Deployment of electronics, photonics, communications, or information processing used singly or in combination, or as components of a fully integrated system, to improve the efficiency or safety of a surface transportation system or to enhance security or passenger convenience. Examples include, but are not limited to, traffic control and detector devices, lane management systems, electronic payment equipment, automatic vehicle locaters, automated passenger counters, computer aided dispatching systems, radio communications

	systems, dynamic message signs, and security equipment including surveillance and detection cameras on roadways and in transit facilities and on buses.
22 ☐	Projects, as defined in 23 U.S.C. 101, that would take place entirely within the existing operational right-of-way. Examples include: ☐ Tower lighting ☐ Guardrail installation and replacement (including median cable barriers) where roadway ditches and backslopes will not be relocated. ☐ Improvements to existing MassDOT maintenance facilities. ☐ Construction of new MassDOT maintenance facilities within an existing operational right of way. ☐ Work on pedestrian and vehicle transfer structures and associated utilities, buildings, and terminals. *(For CE C-22, refer to Categorical Exclusion Guide for further information).*
23 ☐	Federally funded projects: a) That receive less than $5,000,000 (as adjusted annually by the Secretary to reflect any increases in the Consumer Price Index prepared by the Department of Labor) of Federal funds; or b) With a total estimated cost of not more than $30,000,000 (as adjusted annually by the Secretary to reflect any increases in the Consumer Price Index prepared by the Department of Labor) and Federal funds comprising less than 15 percent of the total estimated project cost. *(For CE C-23, refer to Categorical Exclusion Guide for further information).*
24 ☐	Localized geotechnical and other investigation to provide information for preliminary design and for environmental analyses and permitting purposes, such as drilling test bores for soil sampling; archeological investigations for archeology resources assessment or similar survey; and wetland surveys.
25 ☐	Environmental restoration and pollution abatement actions to minimize or mitigate the impacts of any existing transportation facility (including retrofitting and construction of stormwater treatment systems to meet Federal and State requirements under sections 401 and 402 of the Federal Water Pollution Control Act (33 U.S.C. 1341; 1342)) carried out to address water pollution or environmental degradation.
26 ☒	Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (including parking, weaving, turning, and climbing lanes). Examples include: ☐ Construction of highway safety and truck escape ramps

	☒ Construction of bicycle lanes and pedestrian walkways, sidewalks, shared-use paths, or facilities and trailhead parking that do not otherwise qualify for a CE C-1 designation. ☒ Beautification or facility improvement projects (*e.g.*, landscaping, curb and gutter installation and replacement, ADA ramps/curb ramps, installation of park benches, or decorative lighting). ☒ Implementation of Complete Street elements to improve safety and/or pedestrian, bicycle, transit, vehicular, or freight mobility.
27 ☐	Highway safety or traffic operations improvement projects, including the installation of ramp metering control devices and lighting. Examples include lane reduction changes, provided traffic analyses are completed.
28 ☐	Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
29 ☐	Purchase, construction, replacement, or rehabilitation of ferry vessels (including improvements to ferry vessel safety, navigation, and security systems) that would not require a change in the function of the ferry terminals and can be accommodated by existing facilities or by new facilities which themselves are within a CE.
30 ☐	Rehabilitation or reconstruction of existing ferry facilities that occupy substantially the same geographic footprint, do not result in a change in their functional use, and do not result in a substantial increase in the existing facility's capacity. Example actions include work on pedestrian and vehicle transfer structures and associated utilities, buildings, and terminals.
Activity Listed in 23 CFR 771.117(d) (The "D" List)	
1 – 3	[*Reserved*]
4 ☐	Transportation corridor fringe parking facilities.
5 ☐	Construction of new truck weigh stations or rest areas.
6 ☐	Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
7 ☐	Approvals for changes in access control.
8 ☐	Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
9 ☐	Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.

10 ☐	Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks, and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
11 ☐	Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
12 ☐	Acquisition of a particular parcel or a limited number of parcels for hardship or protective purposes where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed. An example is right-of-way acquisition only for a bikeway/pedestrian facility (no construction).

SECTION 2. SEGMENTATION REVIEW		
2. Is the action a linear project?	☐**NO**	☒**YES**
If the answer is "Yes," the preparer should respond to Questions 3 through 5 below. If the answer is "No," the preparer should proceed to Section 3.		
3. Does the project have independent utility?	☐**NO**	☒**YES**
4. Does the project connect logical termini?	☐**NO**	☒**YES**
5. Does the project allow further consideration of alternatives for other reasonably foreseeable transportation improvements?	☐**NO**	☒**YES**

If "NO" is checked for any of the Questions 3 through 5, the project does not qualify as a Categorical Exclusion (CE) and consultation between MassDOT and FHWA is required. If "YES" is checked for Questions 3 through 5, the preparer should complete Section 3.

SECTION 3. CE AND UNUSUAL CIRCUMSTANCES REVIEW		
6. Does the project induce significant impacts to planned growth or land use for the area?	☒**NO**	☐**YES**

U.S. Department of Transportation
Federal Highway Administration

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7. Does the project require the relocation of significant numbers of people?	☒**NO**	☐**YES**
8. Does the project have a significant impact on any natural, cultural, recreational, historic, or other resource?	☒**NO**	☐**YES**
9. Does the project involve significant air, noise, or water quality impacts?	☒**NO**	☐**YES**
10. Does the project have a significant impact on travel patterns?	☒**NO**	☐**YES**
11. Does the project involve substantial controversy on environmental grounds?	☒**NO**	☐**YES**
12. Does the project have a significant impact on Section 4(f) properties or on historic properties?	☒**NO**	☐**YES**
13. Is the project inconsistent with any Federal or state requirement or administrative determination relating to the environmental aspects of the action?	☒**NO**	☐**YES**

If "YES" is checked for any of the questions in Section 3, the project does not qualify as a Categorical Exclusion (CE) and an Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required. If the answer to all questions within Section 3 is "No," the preparer should complete Section 4 below.

SECTION 4. PROGRAMMATIC CATEGORICAL EXCLUSION THRESHOLD REVIEW		
14. Does the project involve residential or commercial displacement, or acquisition of property rights that results in substantial abutter impacts?	☒**NO**	☐**YES**
15. Does the project require submittal of an Interchange Modification Report?	☒**NO**	☐**YES**
16. Does the project have a finding of "may affect, likely to adversely affect" any listed or candidate species or critical habitat that has been designated or proposed under the Endangered Species Act?	☒**NO**	☐**YES**
17. Does the project involve opposition or unresolved objections resulting from consultation or correspondence with Federally Recognized Tribes?	☒**NO**	☐**YES**
18. Does the project have a finding of "Adverse Effect" on historic properties pursuant to Section 106 the National Historic Preservation Act?	☒**NO**	☐**YES**
19. Does the project have an adverse effect on a National Historic Landmark?	☒**NO**	☐**YES**
20. Does the project require the use of Section 4(f) properties that cannot be documented with an FHWA *de minimis* determination?	☒**NO**	☐**YES**

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21. Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	☒**NO**	☐**YES**
22. Does the project require a U.S. Army Corps of Engineers Section 404 (33 U.S.C. § 1344) permit other than a General Permit?	☒**NO**	☐**YES**
23. Does the project require a U.S. Coast Guard bridge permit?	☒**NO**	☐**YES**
24. Does the project require work encroaching on a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake?	☒**NO**	☐**YES**
25. Does the project involve impacts subject to the conditions of the Bald and Golden Eagle Protection Act?	☒**NO**	☐**YES**
26. Is the project a "Type I project" requiring a noise analysis?	☒**NO**	☐**YES**
27. Does the project involve acquisition of land for hardship, protective purposes, or early acquisition?	☒**NO**	☐**YES**
28. Does the project generate substantial public controversy or opposition for any reason?	☒**NO**	☐**YES**
29. Does the project involve construction in, across, or adjacent to a river component designated or proposed for inclusion in the National System of Wild and Scenic Rivers?	☒**NO**	☐**YES**
30. Does the project involve the construction of temporary access or closure of existing road, bridge, or ramps?	☒**NO**	☐**YES**

If the answers to Questions 14 through 30 are "NO", then the project qualifies as a Programmatic CE. If any of the answers to Questions 14 through 30 are "YES", then the project cannot be classified as a Programmatic CE and an Individual CE approval from FHWA is required. If the answer to Question 30 is "Yes", the preparer should complete Question 31 below.

31. Does the project meet the following conditions for construction of temporary access or closure of existing road, bridge, or ramps?	☐**NO**	☐**YES**

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- Provisions have been made for access by local traffic and are posted;
- There will be no adverse effects on through-traffic dependent business;
- The temporary access or closure of existing road, bridge, or ramps will not interfere with a local special event or festival; or
- The temporary access or closure of existing road, bridge, or ramps will not substantially change the environmental consequences of the project.

If the answer to Question 31 is "YES", then the project qualifies as a Programmatic CE. The checklist and all supporting information should be submitted to the MassDOT Project Manager.

If the answer to Question 31 is "NO", then the project cannot be classified as a Programmatic CE and an Individual CE approval from FHWA is required. The preparer should attach to this checklist all supporting information to clearly establish that there is little or no potential for significant impact. The Individual CE and supporting information will be submitted to the FHWA Massachusetts Division for approval.

CERTIFICATION *(FOR AGENCY USE ONLY)*

Based on the information obtained during environmental review process and included in this checklist, the project is determined to be a Categorical Exclusion pursuant to the National Environmental Policy Act and complies with all other applicable environmental laws, regulations, and Executive Orders.

10/9/2024

Director of Environmental Services
(or designee)

Date

For Individual CEs, the FHWA Division Administrator's signature is also required.

N/A

Division Administrator
(or designee)

Date

FHWA Comments or Conditions:



0 250 500 1000 Feet

Project Location

Multimodal Accommodations on School Street | Mansfield, MA

Aerial Locus

A00871-17

Source: VHB, MassGIS

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: December 20, 2023
Project code: 2024-0028720
Project Name: 609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET

Subject: Consistency letter for the '609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated December 20, 2023 to verify that the **609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action will have no effect on the endangered Indiana bat (*Myotis sodalis*) or the endangered northern long-eared bat (*Myotis septentrionalis*). If the Proposed Action is not modified, **no consultation is required for these two species.** If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or northern long-eared bat in a manner or to an extent not considered in the PBO, 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 bats and/or NLEBs use or occupancy, yet later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental

take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

If the Proposed Action 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 Office is required. If the proposed action 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 accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET

DESCRIPTION

609255 MANSFIELD- MULTIMODAL ACCOMMODATION ON SCHOOL STREET, FROM SPRING STREET TO WEST STREET

Work on this project includes roadway improvements on School Street from Spring Street to West Street (approximately 2100'). Shoulders will be constructed to accommodate bicycles and sidewalks will be included to accommodate all users. Bituminous berm will line most of the roadway and the sidewalk will be separated from the roadway by a 3' grass strip. The School Street and Spring Street intersection will be tightened up by reducing the pavement area which will slow down traffic. Willow Street will tee into Spring Street providing more separation between School Street and Willow Street. Drainage, signage and striping will be incorporated throughout the project.

Monarch Butterfly: Candidate Species only, no conservation measures at this time.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.02003165,-71.22491446016446,14z



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the endangered Indiana bat and/or the endangered northern long-eared bat. Therefore, no 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 for these two species.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat[1]?

   [1] See Indiana bat species profile

   Automatically answered
   No

2. Is the project within the range of the northern long-eared bat[1]?

   [1] See northern long-eared bat species profile

   Automatically answered
   Yes

3. [Semantic] Does your proposed action intersect an area where Indiana bats and northern long-eared bats are not likely to occur?

   Automatically answered
   Yes

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on October 30, 2023. 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) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Massachusetts Department of Transportation
Name: Trevor Burns
Address: 10 Park Plaza
City: Boston
State: MA
Zip: 02116
Email trevor.b.burns@dot.state.ma.us
Phone: 8573010759

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Drawn Action Area & Overlapping S7 Consultation Areas

Area of Interest (AOI) Information

Area : 747.78 acres

Apr 3 2024 11:11:52 Eastern Daylight Time



Summary

Name	Count	Area(acres)	Length(mi)
Atlantic Sturgeon	0	0	N/A
Shortnose Sturgeon	0	0	N/A
Atlantic Salmon	0	0	N/A
Sea Turtles	0	0	N/A
Atlantic Large Whales	0	0	N/A
In or Near Critical Habitat	0	0	N/A

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Monica Tibbits-Nutt, Acting Secretary & CEO
Jonathan L. Gulliver, Highway Administrator

MassDOT
Massachusetts Department of Transportation
Highway Division

CONCURRENCE. Brona Simon
11/10/23
BRONA SIMON
STATE HISTORIC
PRESERVATION OFFICER October 13, 2023
MASSACHUSETTS
HISTORICAL COMMISSION

RECEIVED
OCT 16 2023
MASS. HIST. COMM
RC.70412

Ms. Brona Simon
State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

RE: MANSFIELD: MassDOT Project #609255
Multimodal Accommodation on School Street from Spring Street to West Street
Section 106 Review: No Adverse Effect
Section 4(f): Permanent Easements – *de minimis* impact
Section 4(f): Temporary Occupancies – No 4(f) Use

Dear Ms. Simon,

The Massachusetts Department of Transportation (MassDOT) and the Town of Mansfield are proposing to expend federal funds on multimodal accommodations on a 0.49-mile section of School Street. The School Street project area extends northerly from Spring Street to West Street. Project work on School Street is adjacent to the **National Register-listed Spring Brook Cemetery** (MNF.803). MassDOT has reviewed the 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 any properties that are listed or are eligible for listing in the National Register of Historic Places.

Project Description

The project work includes: full depth pavement reconstruction; installation of new ADA-compliant curbing, sidewalk, wheelchair ramps and crosswalks where none exist and upgrading existing sections of sidewalk; drainage system improvements; and bicycle accommodations. The proposed sidewalk on both sides of School Street between Bliss Avenue and West Street will be 8.5-ft. in width. The proposed sidewalk on the east and west sides of School Street from Bliss Avenue to Spring Street will be 5.0-ft. and 5.5-ft. in width, respectively. Water and gas lines will be relocated to accommodate the roadway and drainage improvements. The existing traffic signal equipment on the southeast and southwest corners of the School Street/Copeland Drive/West Street intersection will be upgraded. The signal equipment on the northeast and northwest corners will remain.

Spring Brook Cemetery

The School Street project area extends along the western boundary of the NR-listed Spring Brook Cemetery. Spring Brook Cemetery was founded c. 1790 and is still in use. The cemetery is the largest in Mansfield at 22 acres and contains approximately 3,400 stones. The oldest part of the cemetery is located along Spring Street, but most of the cemetery was laid out in the second half of the 19th century as a memorial park and the stone art, markers, and cemetery access roads generally reflect this era. The former Roland Green School was located at School Street and Coral Street before it burned for the final time ca. 1935. More recent headstones are located in the section of the cemetery near School Street.

Ten Park Plaza, Suite 4160, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
mass.gov/massdot

The west side of the cemetery along School Street is bounded by wrought iron fencing (replacing the chain link fencing shown on the 2012 Streetview image). The project work adjacent to the cemetery will be limited to sidewalk reconstruction. The cemetery fencing will be retained. A minor permanent easement will be required from the cemetery property to accommodate the sidewalk reconstruction (see Section 4(f) evaluation). Temporary easements will be required on the cemetery property for grading and placing loam and seed outside the cemetery fencing.

Inventoried Properties

A review of the Inventory of Historic Assets of the Commonwealth revealed no inventoried properties within the project's area of potential effect. The project area is lined with residences from the 19th and 20th centuries. None of the properties appear to possess sufficient integrity, architectural significance, or historical associations to meet the criteria for listing in the National Register, either individually or as part of an historic district.

Archaeological Assessment

A review of the MHC's archaeological maps on MACRIS revealed no recorded pre-contact or historic period sites in the vicinity of the School Street project area. It is the opinion of the MassDOT Archaeologist, Jameson Harwood, that low sensitivity can be ascribed to the School Street project's direct area of potential effect (APE) based on the impacts of past roadway, utility, and drainage construction, and roadside development. The project work has no potential to encounter any unmarked burials that might be associated with the Spring Brook Cemetery.

Section 4(f) Evaluation – Permanent Easements – *de minimis* impact

This project requires one permanent easement from a parcel occupied by the NR-listed Spring Brook Cemetery (30 sq. ft. from Parcel E-1). The permanent easement is necessary to accommodate sidewalk reconstruction and is highlighted in pink on the attached right of way plans.

It is MassDOT's expectation that the Federal Highway Administration (FHWA) will determine that the proposed permanent easement meets the criteria for a Section 4(f) *de minimis* finding, pursuant to 23 CFR 774.3(b). This project, therefore, does not require an individual Section 4(f) evaluation. This letter is intended to inform the State Historic Preservation Officer (SHPO) that this project is expected to qualify for a *de minimis* finding under Section 4(f) based on the concurrence of your office with this Section 106 finding of No Adverse Effect, pursuant to 23 CFR 774.5(b)(1)(ii).

Section 4(f) Evaluation – Temporary Occupancies – No 4(f) use

This project also requires temporary occupancies, also known as temporary construction easements, on the parcels occupied by the NR-listed Spring Brook Cemetery. These temporary occupancies are necessary to facilitate grading and the placement of loam and seed. The parcels highlighted in yellow on the enclosed ROW plans show the proposed temporary occupancies on the cemetery property.

It is MassDOT's opinion that the temporary occupancies located within or adjacent to the NR-listed property 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 No Adverse Effect finding will signify that your office agrees with MassDOT's assessment that the proposed temporary occupancies do not constitute a "use" of the NR-eligible historic properties under Section 4(f) and that the conditions listed above have been satisfied, pursuant to Condition 5.

Section 106 Consultation and No Adverse Effect Finding

An early notification letter was forwarded to the Mansfield Historical Commission on February 26, 2021. A copy was forwarded to the MHC. No comments have been received from either Commission.

MassDOT solicits your concurrence with our finding of No Adverse Effect for this project under Section 106 of the National Historic Preservation Act of 1966, as amended. Please feel free to contact me at jameson.harwood@dot.state.ma.us if you have any questions.

Sincerely,

Jameson Harwood
Cultural Resources Supervisor
Environmental Services

ENC: Locus
Project plans
ROW plans
MACRIS map
Streetview photo (2023 and 2012)

FOR FHWA USE

MassDOT Request for Federal Highway Administration (FHWA) Approval

MassDOT Highway Division requests final approval from FHWA that the proposed "use" of the above described Section 4(f) resources meets the criteria of a *de minimis* impact, as specified under 23 CFR 774.17.

CASSANDRA CHASE OSTRANDER

Digitally signed by CASSANDRA CHASE OSTRANDER
Date: 2024.03.29 15:47:50 -04'00'

Joi Singh, (or designee) Date
Division Administrator
Federal Highway Administration
Massachusetts Division

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

PLAN AND PROFILE OF

SCHOOL STREET

IN THE TOWN OF

MANSFIELD

BRISTOL COUNTY

FEDERAL AID PROJECT NO. TBD

PRELIMINARY RIGHT OF WAY PLAN

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	1	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
TITLE SHEET & INDEX

609255_RW(COV).DWG Plotted on 10-Apr-2024 4:59 PM

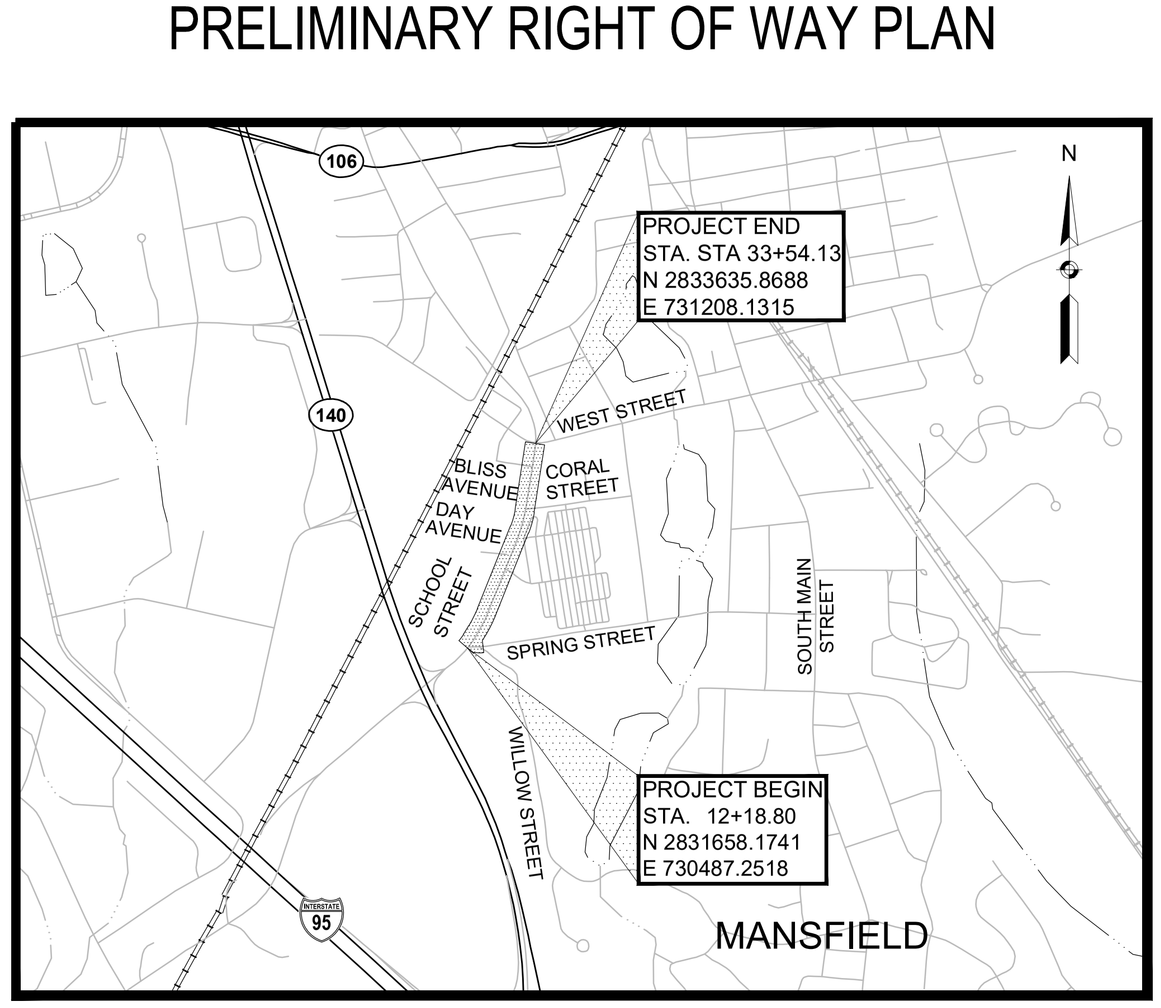
Proposal No. 609255-130934

A00871 - 31

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND, ABBREVIATIONS, AND PROJECT DESCRIPTION
3	TYPICAL SECTIONS
4-8	CRITICAL PROFILE
9-10	PARCEL SUMMARY
11	LOCATION PLAN
12-16	PROPERTY PLAN



0 1000 2000 3000 4000

SCALE: 1" = 1000'

LENGTH OF PROJECT = 2,581.20 FEET = 0.488 MILES

BASEPLAN NOTES:

1) THE SURVEY BASE PLAN WAS PREPARED BY SITE DESIGN ENGINEERING, LLC IN JANUARY, 2020, AND SUPPLEMENTED IN JUNE 2022.

2) THE MOST RECENT SITE VISIT WAS COMPLETED IN NOVEMBER 2023 TO VERIFY THE EXISTING CONDITIONS SHOWN ON THE PLANS ARE THE CURRENT CONDITIONS IN THE FIELD

3) THE PROPERTY LINES SHOWN ON THE PLANS WERE COMPILED FROM RECORD DEEDS AND PLANS AND CERTIFIED BY CRAIG D.K. ROBERTSON, A PLS IN THE COMMONWEALTH OF MASSACHUSETTS, IN DIRECT CHARGE AND SUPERVISION OF THE SURVEY BASEMAP. INDIVIDUAL ABUTTERS PROPERTIES WERE NOT SURVEYED.

4) LAYOUT LINES ARE UNAMBIGUOUSLY RETRACEABLE AND DEPICTED ACCURATELY ON THE RIGHT-OF-WAY PLANS BY AN ON-THE-GROUND SURVEY PERFORMED IN ACCORDANCE WITH 250 CMR 6.01 AND 6.02.

5) THE OWNERS HAVE BEEN CHECKED AND UPDATED PER THE REGISTRY OF DEEDS AS OF FEBRUARY 2024.

6) THE PREQUALIFIED SURVEYOR UNDER THE S3 CATEGORY IS PARTICIPATING IN THE DEVELOPMENT OF THE ROW PLANS. CRAIG D.K. ROBERTSON, PLS HAS VERIFIED HIGHWAY LAYOUT BASELINES AND SIDELINES, VERIFIED MUNICIPAL LAYOUTS, VERIFIED THAT ABUTTERS PROPERTY LINES ARE CREATED BASED ON RECORD DEEDS AND PLANS, VERIFIED CURRENT ABUTTERS OWNERSHIP INFORMATION, VERIFIED EXISTING PERMANENT EASEMENTS, VERIFIED ANY OTHER ELEMENTS IN THE SURVEY BASE PLAN THAT AFFECTS DISPOSITIONS AND LAND ACQUISITIONS.

THE LAYOUT LINES, AS REPRESENTED ON THE PRELIMINARY RIGHT OF WAY PLANS, ARE BASED UPON AN INSTRUMENT SURVEY THAT MEETS 250 CMR 6.00 AND ARE SUITABLE TO BE USED FOR A RECORDABLE PLAN, AND MEET THE STANDARDS SET FORTH IN BOTH 250 CMR 6.01 AND 6.02

COMMONWEALTH OF MASSACHUSETTS
CRAIG D.K. ROBERTSON No. 57615
REGISTERED PROFESSIONAL LAND SURVEYOR

4/10/24
DATE

CRAIG D. K. ROBERTSON, PLS #57615

DATE	DESCRIPTION	REV #
02-26-2021	25% SUBMISSION	0
05-30-2023	DPH INTERIM SUBMISSION NEW PARCELS: TE-20, TE-21 ALTERED PARCELS: TE-1, TE-2, TE-3, TE-4, TE-5, TE-6, TE-7, TE-8, TE-9, TE-10, TE-12, TE-13, TE-14, TE-15, TE-17, TE-19 DELETED PARCELS: E-2, E-3, E-4, E-5, E-6, E-7, TE-16	1
12-08-2023	75% SUBMISSION NEW PARCELS: TE-22, TE-23, TE-24, TE-25, TE-26, TE-27, TE-28, TE-29, TE-30, TE-31, TE-32, TE-33, TE-34, TE-35, TE-36, TE-37 ALTERED PARCELS: TE-1, TE-2, TE-3, TE-4, TE-5, TE-6, TE-7, TE-8, TE-9, TE-10, TE-11, TE-12, TE-13, TE-14, TE-15, TE-17, TE-18, TE-19, TE-27 DELETED PARCELS: TE-20, TE-21	2
04-10-2024	75% SUBMISSION REVISION 1 NEW PARCELS: D-1, TE-38 ALTERED PARCELS: TE-19, TE-26, TE-27	3

vhb
1 CEDAR STREET
PROVIDENCE, RI 02903

massDOT
Massachusetts Department of Transportation
Highway Division

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DATE

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
C	C	CABLE MANHOLE
D	D	DRAINAGE MANHOLE
E	E	ELECTRIC MANHOLE
G	G	GAS MANHOLE
M	M	MISC MANHOLE
S	S	SEWER MANHOLE
T	T	TELEPHONE MANHOLE
W	W	WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
GB/DH		GRANITE BOUND / DRILL HOLE
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
OW		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99		CONTOURS (PHOTOGRAMMETRIC DATA)
12" RCP D		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
40"X60" D		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
4"G		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
8" VCP S		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
T		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
8"W		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
100' BZ		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
Ø1	Ø1	CONTROLLER PHASE
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		QUADRUPOLE WIRE LOOP DETECTOR
		BICYCLE WIRE LOOP DETECTOR, TYPE B-2
		VIDEO DETECTION CAMERA
		SINGLE POINT VIDEO DETECTION CAMERA
		VIDEO DETECTION ZONE
		APS PEDESTRIAN PUSH BUTTON, SIGN AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD, WITH/WITHOUT BACKPLATE
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED, WITH/WITHOUT BACKPLATE
		FLASHING BEACON, WITH/WITHOUT BACKPLATE
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
7S		SIGNAL POST AND BASE
		MAST ARM, SHAFT AND BASE
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		OVERHEAD SIGN
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE - SD2.022 (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
		YIELD LINE TRIANGLES - WHITE
	SL	STOP LINE - WHITE, 12" WIDTH
	CW	CROSSWALK-WHITE, WIDTH AS NOTED
	SWL	SOLID WHITE LINE, 6" WIDTH
	SYL	SOLID YELLOW LINE, 6" WIDTH
	SWCHL	SOLID WHITE CHANNELIZATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
	SYCHL	SOLID YELLOW CHANNELICATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
	BWL	BROKEN WHITE LINE, 6" WIDTH, 10' LINE W/30' GAPS
	BYL	BROKEN YELLOW LINE, 6" WIDTH, 10' LINE W/30' GAPS
	DWL	DOTTED WHITE LINE, 6" WIDTH, LENGTH AND SPACING AS NOTED
	WDWL	WIDE DOTTED WHITE LINE, 12" WIDTH, LENGTH AND SPACING AS NOTED
	WDWLEx	WIDE DOTTED WHITE LINE, 12" WIDTH, LENGTH AND SPACING AS NOTED
	DYL	DOTTED YELLOW LINE, 6" WIDTH, LENGTH AND SPACING AS NOTED
	DWLEx	DOTTED WHITE LINE EXTENSION, 6" WIDTH, 2' LINE W/6' GAPS
	DYLEx	DOTTED YELLOW LINE EXTENSION, 6" WIDTH, 2' LINE W/6' GAPS
	DBWL	DOUBLE WHITE LINE, 6" WIDTH
	DBYL	DOUBLE YELLOW LINE, 6" WIDTH
		BICYCLE LANE WORD, SYMBOL AND/OR ARROW - WHITE
		SHARED LANE - WHITE

PROJECT DESCRIPTION:

THE PROPOSED PROJECT CONSISTS OF THE RECONSTRUCTION OF SCHOOL STREET FROM THE MASSACHUSETTS STATE LAYOUT JUST SOUTH OF SPRING STREET TO WEST STREET. THE PROPOSED RECONSTRUCTION WILL INCLUDE FULL DEPTH PAVEMENT, INSTALLATION OF NEW CURBING AND SIDEWALK, ADA COMPLIANT RAMPS, NEW CROSSWALKS, NEW CLOSED DRAINAGE SYSTEM, CEMENT CONCRETE SIDEWALKS AND BICYCLE ACCOMMODATIONS CONSISTING OF A 5 FOOT WIDE SHOULDER.

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GC	GRANITE CURB
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	2	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
LEGEND, ABBREVIATIONS AND
PROJECT DESCRIPTION

ABBREVIATIONS (cont.)

GENERAL

PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REL	RELOCATED
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL

CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY DON'T WALK
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
←FR	FLASHING RED LEFT ARROW
—FR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
←FY	FLASHING YELLOW LEFT ARROW
—FY	FLASHING YELLOW RIGHT ARROW
G	STEADY CIRCULAR GREEN
←G	STEADY GREEN LEFT ARROW
—G	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
↑G	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
←R	STEADY RED LEFT ARROW
—R	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR YELLOW
←Y—	STEADY YELLOW LEFT ARROW
—Y→	STEADY YELLOW RIGHT ARROW
APS	ACCESSIBLE PEDESTRIAN SYSTEM

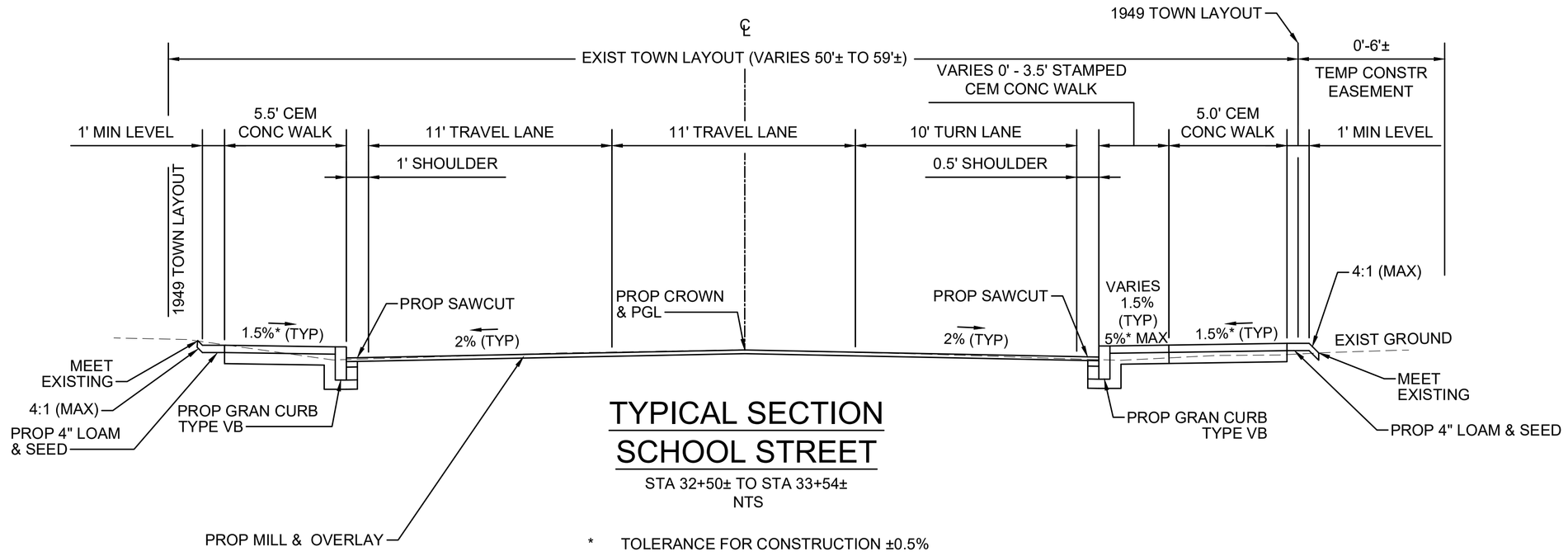
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Proposal No. 609255-130934

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	3	16
PROJECT FILE NO. 609255			

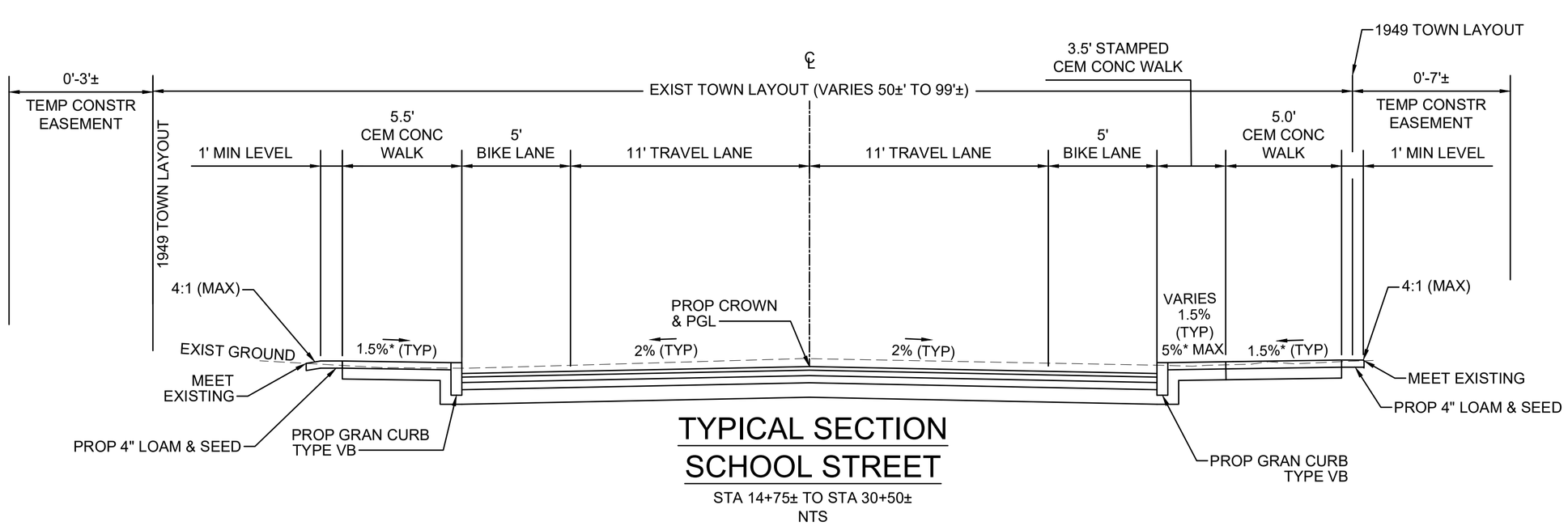
PRELIMINARY RIGHT OF WAY
TYPICAL SECTIONS



TYPICAL SECTION
SCHOOL STREET

STA 32+50± TO STA 33+54±
NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%



TYPICAL SECTION
SCHOOL STREET

STA 14+75± TO STA 30+50±
NTS

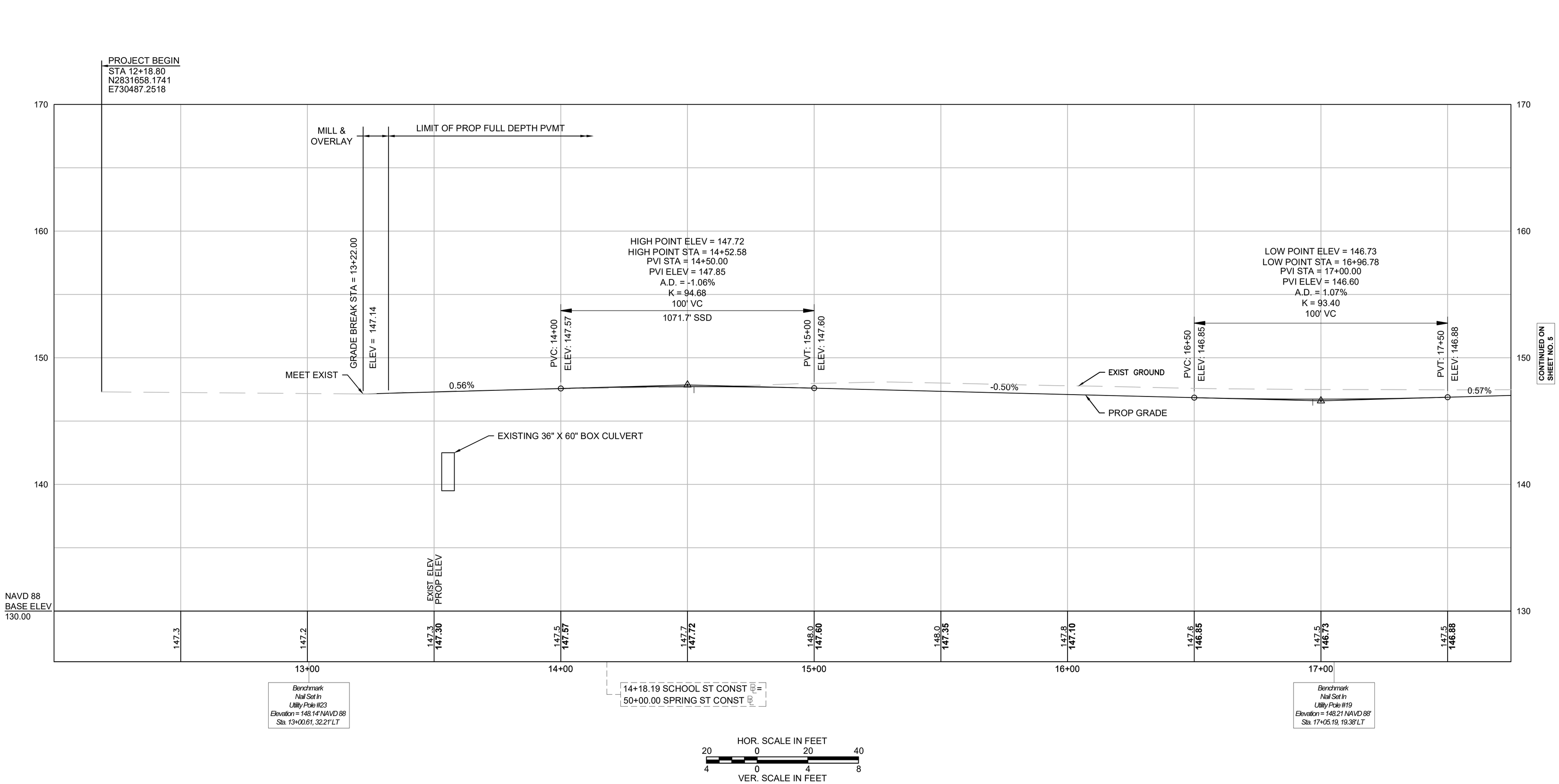
* TOLERANCE FOR CONSTRUCTION ±0.5%

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Proposal No. 609255-130934
A00871 - 33

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	4	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
CRITICAL PROFILE
SHEET 1 OF 5



FOR PROPERTY PLAN:
SEE SHEET NO. 12

609255_RW(PRF).DWG Plotted on 10-Apr-2024 4:02 PM

Proposal No. 609255-130934

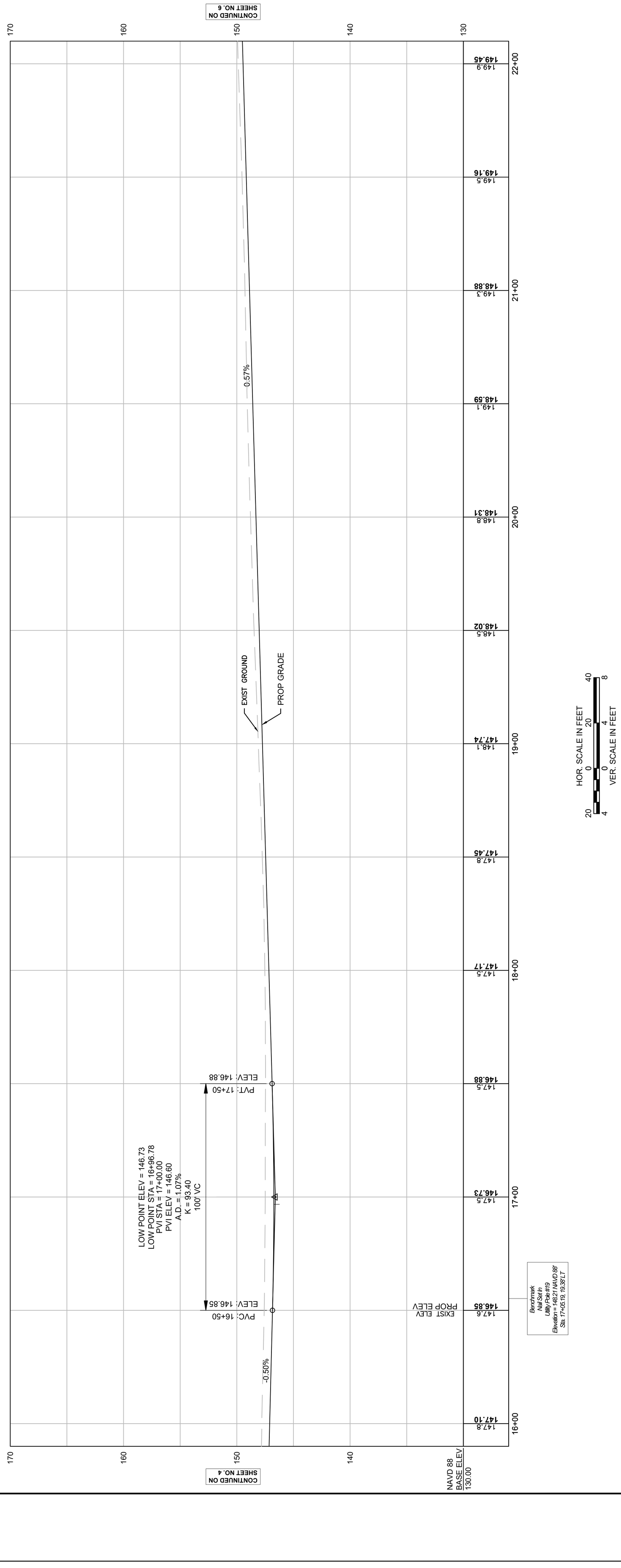
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MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	5	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
CRITICAL PROFILE
SHEET 2 OF 5

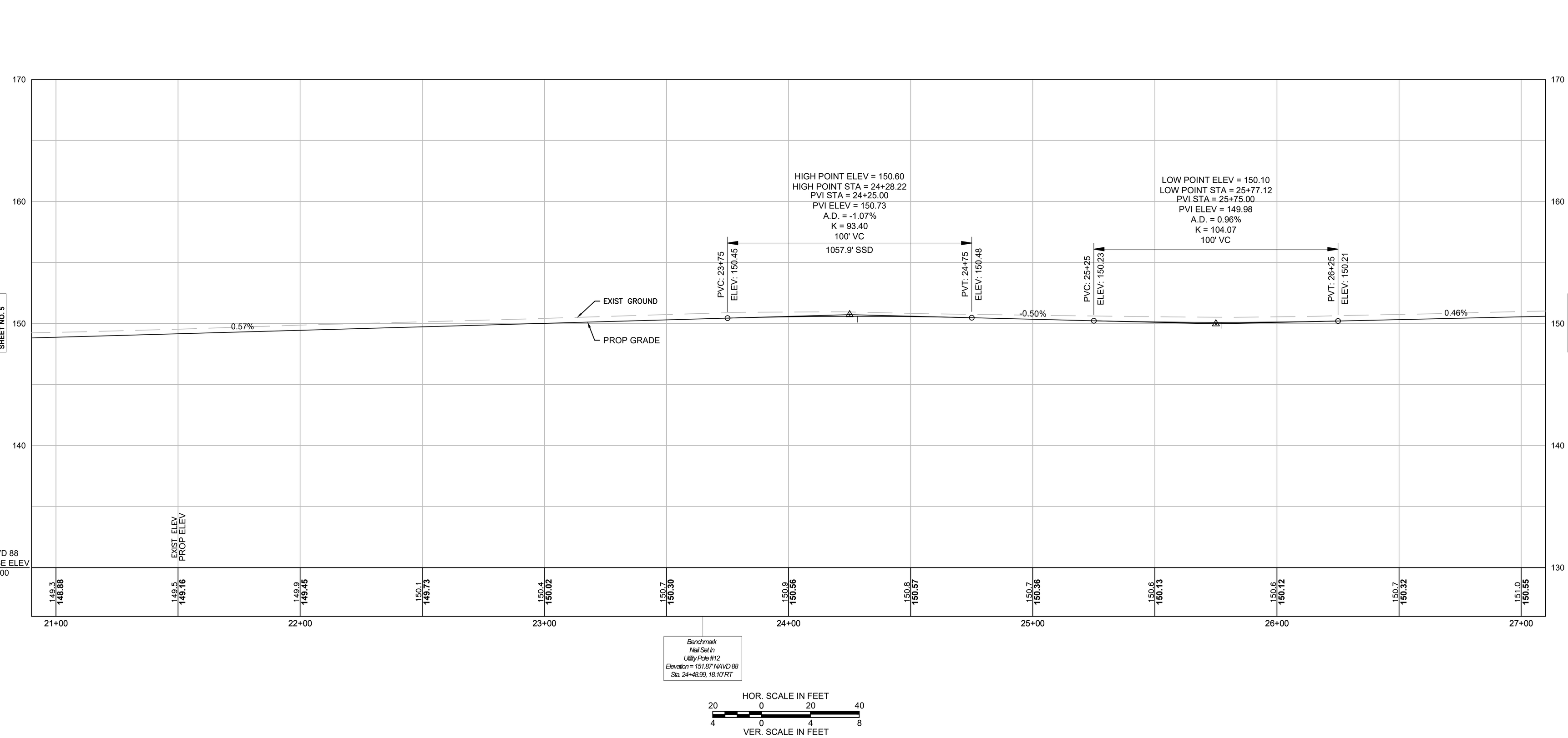


FOR PROPERTY PLAN:
SEE SHEET NO. 13

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	6	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
CRITICAL PROFILE
SHEET 3 OF 5



FOR PROPERTY PLAN:
SEE SHEET NO. 14

609255_RW(PRF).DWG Plotted on 10-Apr-2024 4:02 PM

Proposal No. 609255-130934

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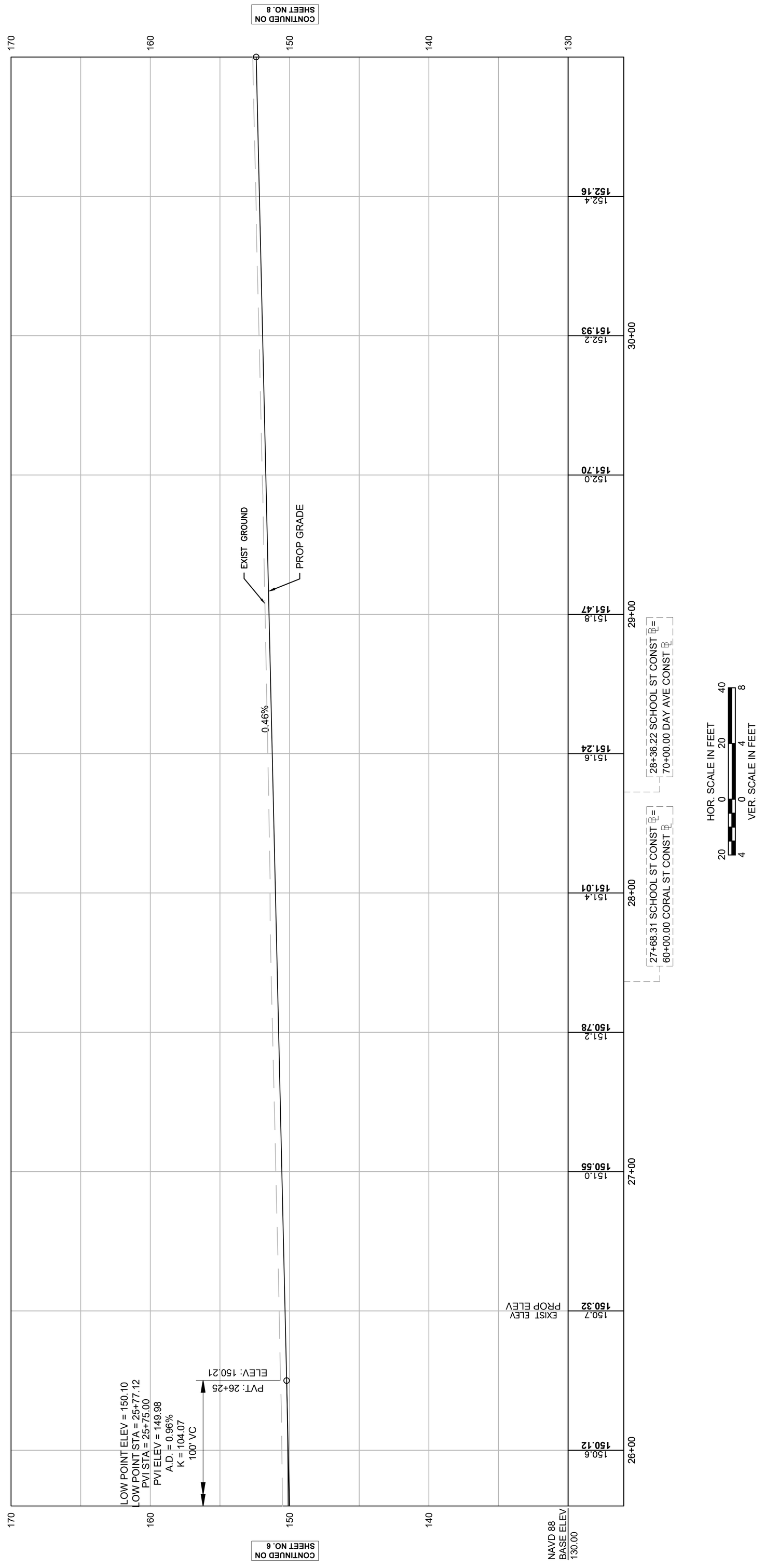
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MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	7	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
CRITICAL PROFILE
SHEET 4 OF 5

FOR PROPERTY PLAN:
SEE SHEET NO. 15



MANSFIELD
SCHOOL STREET

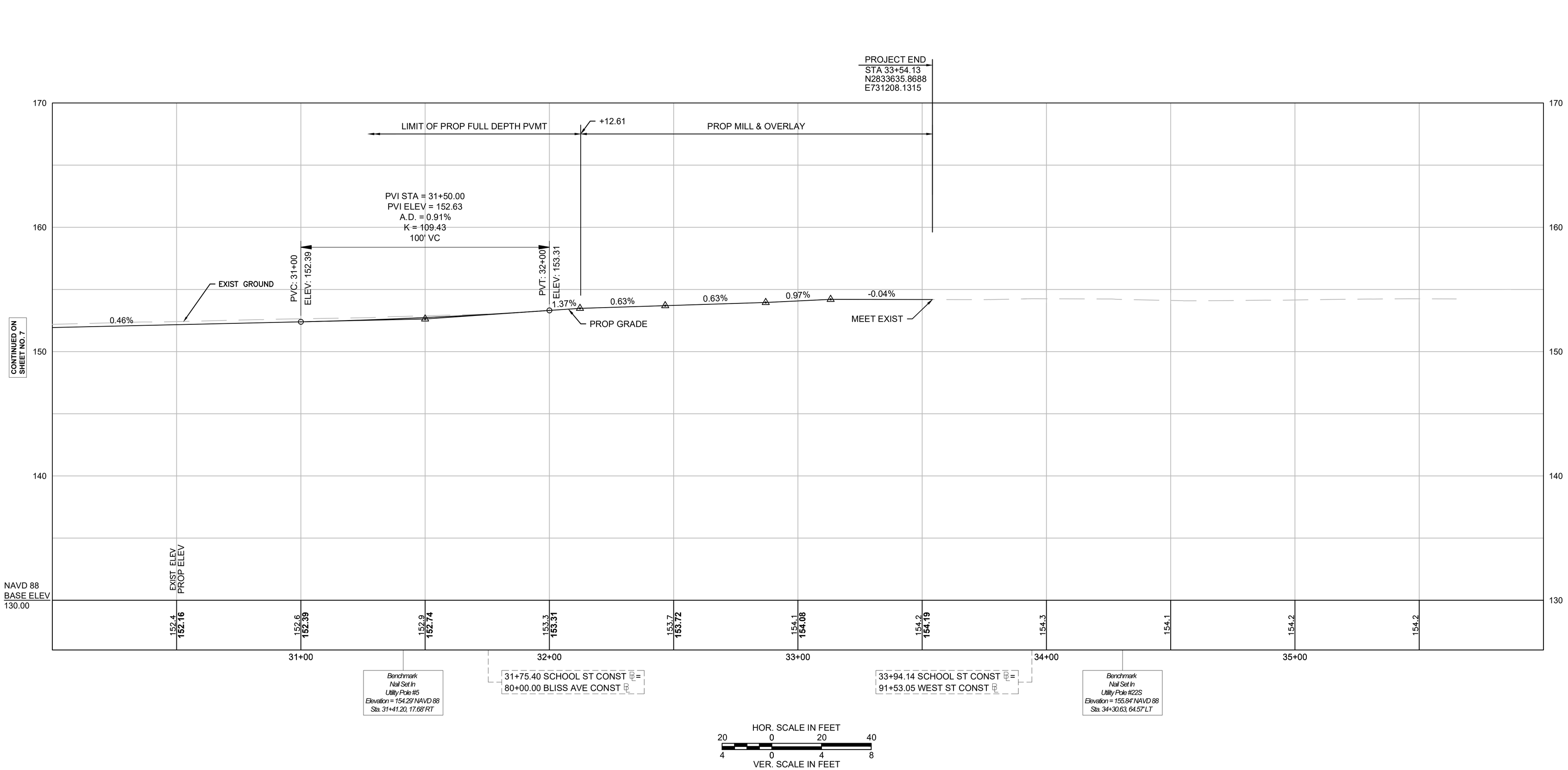
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	8	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
CRITICAL PROFILE
SHEET 5 OF 5

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Proposal No. 609255-130934

A00871 - 38



FOR PROPERTY PLAN:
SEE SHEET NO. 16

PROJECT TOTALS			
AFFECTED PROPERTIES	FEE TAKINGS	PERMANENT EASEMENTS	TEMPORARY EASEMENTS
29	0	2	35

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	9	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
PARCEL SUMMARY
SHEET 1 OF 2

TOWN OF MANSFIELD

PARCEL NO.	PLAN SHEET NO.	TITLEHOLDER	TITLE REFERENCE				AREA (S.F. +/-)						TOTAL PROPERTY ARTEA (S.F.)	TOTAL FRONTAGE ON ROW PLANS (FT.)	PROPERTY ADDRESS	REMARKS	LAND RESTRICTION FROM THE DEED
			DEED BOOK	PAGE NO.	LCC NO.	CERT NO.	TAKEN		EASEMENT		TOTAL TAKEN	REMAINING					
							TOWN	STATE	TYPE	AREA							
TE-1	12	MIRANDA M. BESSE & DEVON J. PETERS	28646	74					TEMP	908				352	231 SPRING STREET	LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-36	12	MIRANDA M. BESSE & DEVON J. PETERS	28646	74					TEMP	51						LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-2	12,13	MICHAEL OLESCH & LAUREN S. OLESCH	15819	181					TEMP	1,110				139	130 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-3	12, 13	ELIZABETH J. CLEVELAND	6721	158					TEMP	25				93	120 SCHOOL STREET	LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-22	13	ELIZABETH J. CLEVELAND	6721	158					TEMP	135						DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-37	12, 13	ELIZABETH J. CLEVELAND	6721	158					TEMP	92						DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-4	13	JOINT VENTURE REALTY TRUST, LLC	17559	33					TEMP	912				130	112-114 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), R&R MAILBOX	
TE-6	13	JOSEPH F. HOMER, JR. & LINDA M. HOMER	14026	205					TEMP	793				99	102 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), R&R FLAGSTONE WALK, R&R MAILBOX	
TE-23	13	MAJORIE R. ENGLER & KIMBERLY WISNIEWSKI	13368	54					TEMP	32				59	109-111 SCHOOL STREET	LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), TREE PROTECTION	
TE-24	13	NANCY L. KELLEY	14741	317					TEMP	203				68	107 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), TREE PROTECTION	
TE-25	13	ALAA A. HOSNY	22707	149					TEMP	194				101	101 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), REM SECTION OF FENCE, REM SECTION OF WALL, R&R MAILBOX	
TE-8	14	STEVEN A. THIBODEAU & ALISON N. THIBODEAU	9217	41					TEMP	1,213				150	88 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, WALL RECONSTRUCTION, WALK RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), REM PORTION OF WALL, R&R FENCE	
E-1	11, 14, 15	MANSFIELD SPRING BROOK CEMETERY CORP.	1255	60					PERM	30			978,499	1,197	165 SPRING STREET	SIDEWALK RECONSTRUCTION	
TE-5	13	MANSFIELD SPRING BROOK CEMETERY CORP.	1255	60					TEMP	79						LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-7	13, 14	MANSFIELD SPRING BROOK CEMETERY CORP.	1255	60					TEMP	798						DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-9	14	MANSFIELD SPRING BROOK CEMETERY CORP.	1255	60					TEMP	1,593						LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-10	14, 15	MANSFIELD SPRING BROOK CEMETERY CORP.	1255	60					TEMP	771						LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-19	14	PATRICK KEVIN RUSE & BETH WILLIAMSON-RUSE	13863	245					TEMP	963				144	71 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), R&S FENCE, SEDIMENT CONTROL BARRIER	
TE-26	14	MARY K. EASTWOOD & BRIAN D. FEENEY	27111	39					TEMP	341				109	77 SCHOOL STREET	LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-27	14	EDWARD H. AMMIDOWN & JUDITH A. AMMIDOWN	1829	262					TEMP	1,941				82	63 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	

609255_RW(PSUM).DWG Plotted on 10-Apr-2024 4:03 PM

Proposal No. 609255-130934

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	10	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
PARCEL SUMMARY
SHEET 2 OF 2

TOWN OF MANSFIELD

PARCEL NO.	PLAN SHEET NO.	TITLEHOLDER	TITLE REFERENCE				AREA (S.F. +/-)						TOTAL PROPERTY ARTEA (S.F.)	TOTAL FRONTAGE ON ROW PLANS (FT.)	PROPERTY ADDRESS	REMARKS	LAND RESTRICTION FROM THE DEED
			DEED BOOK	PAGE NO.	LCC NO.	CERT NO.	TAKEN		EASEMENT		TOTAL TAKEN	REMAINING					
							TOWN	STATE	TYPE	AREA							
TE-28	14, 15	WAYNE M. MARTIN	9118	333					TEMP	404				76	59 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), R&R FLAGSTONE WALK	
TE-29	14, 15	CHRISTOPHER REHREY & LINDSAY REHREY	20541	30					TEMP	375				75	47 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-11	15	LORETTA M. WILNER & DAVID W. WILNER	9764	326					TEMP	690				250	67 CORAL STREET	LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-12	15	CLAUDIA AMANDA ANDRADE	21434	137					TEMP	712				85	28 SCHOOL STREET	DRIVEWAY & WALK RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), PROP TREE PROTECTION	
TE-13	15, 16	JOHN M. CARROLL, JR. & JOHN E. WALLASK	8622	144					TEMP	683				85	22 SCHOOL STREET	DRIVEWAY & WALK RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-30	15	GUSTAVE C. ENZIE & LAUREN L. ENZIE	9184	99					TEMP	282				215	45 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), REM TREE	
TE-31	15	DANIEL RABINOWITZ & ADRIENNE GIRARD	25881	311					TEMP	403				215	35 SCHOOL STREET	WALK RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), STUMP REMOVAL, REM TREE	
TE-32	15	NICHOLAS J. PIRO	28472	37					TEMP	375				75	29 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-33	15, 16	JOHN BUTLER & KATHY PURRIER	10827	167					TEMP	375				75	23 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), PROP TREE PROTECTION	
TE-14	16	KENNETH J. DONNELLY & MARY U. WHEELER	24188	265					TEMP	626				74	18 SCHOOL STREET	DRIVEWAY & WALK RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-15	16	MICHAEL J. FARESE	26504	54					TEMP	731				80	14 SCHOOL STREET	DRIVEWAY & WALK RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), REM SHRUBS	
TE-17	16	MANSFIELD CONGREGATION JEHOVAHS WITNESSES, INC.	1803	4					TEMP	325				303	6 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-18	16	SCOTT M. MORRISON	20644	67					TEMP	372				140	1 SCHOOL STREET	DRIVEWAY RECONSTRUCTION, STONE WALK REMOVAL, LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-34	16	THE DAVID S. CASS REVOCABLE TRUST OF 2023	28433	301					TEMP	441				215	17 SCHOOL STREET	LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	
TE-35	16	CATHY A. MCGOWAN	2422	334					TEMP	405				159	9 SCHOOL STREET	LOAM AND SEED, SLOPING AND GRADING (4:1 MAX), REM TREE, REM SHRUBS	
D-1	11, 14	OWNER UNKNOWN							PERM	2,240						DREDGING OF EXISTING STREAM CHANNEL	
TE-38	14	OWNER UNKNOWN							TEMP	1,941						LOAM AND SEED, SLOPING AND GRADING (4:1 MAX)	

609255_RW(PSUM).DWG Plotted on 10-Apr-2024 4:03 PM

Proposal No. 609255-130934

A00871 - 40

609255_RW(LOC).DWG Plotted on 10-Apr-2024 4:03 PM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	11	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
LOCATION PLAN
SHEET 1 OF 1



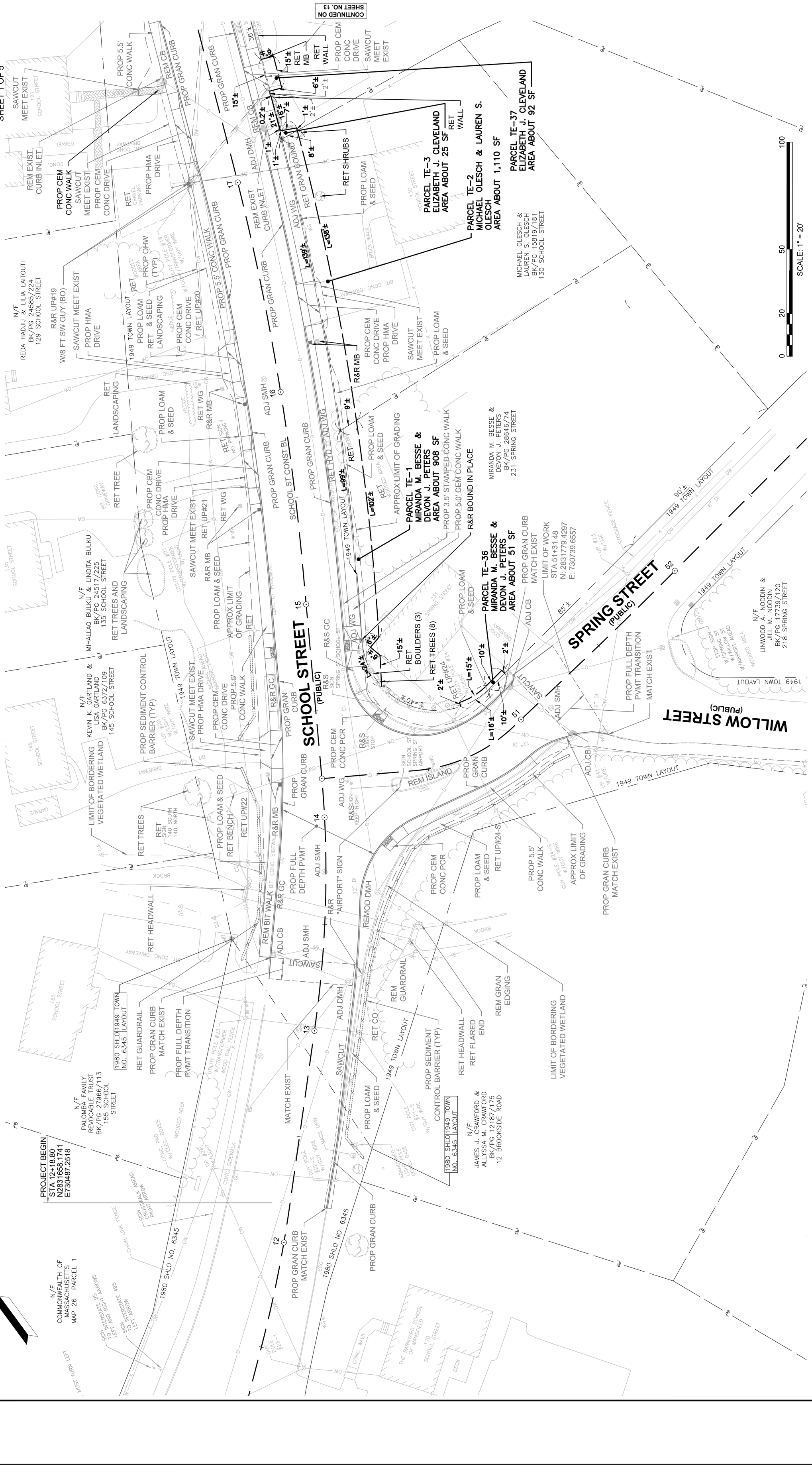
MANSFIELD SPRING BROOK CEMETERY CORP.
BK/PG 1255/60
PROPERTY AREA 978,499 S.F.

609255_RW(PROP).DWG Plotted on 10-Apr-2024 4:03 PM

MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	12	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
PROPERTY PLAN
SHEET 1 OF 5



MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	13	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
PROPERTY PLAN
SHEET 2 OF 5

609255_RW(PROP).DWG Plotted on 10-Apr-2024 4:03 PM

Proposal No. 609255-130934

A00871 - 43

SCHOOL STREET
(PUBLIC)

SCHOOL ST CONST BL

CONTINUED ON SHEET NO. 12

CONTINUED ON SHEET NO. 14

PARCEL TE–2
MICHAEL OLESCH &
LAUREN S. OLESCH
AREA ABOUT 1,110 SF

PARCEL TE–3
ELIZABETH J. CLEVELAND
AREA ABOUT 25 SF

PARCEL TE–37
ELIZABETH J. CLEVELAND
AREA ABOUT 92 SF

PARCEL TE–22
ELIZABETH J. CLEVELAND
AREA ABOUT 135 SF

PARCEL TE–4
JOINT VENTURE
REALTY TRUST, LLC
AREA ABOUT 912 SF

PARCEL TE–5
MANSFIELD SPRING
BROOK CEMETERY CORP.
AREA ABOUT 79 SF

PARCEL TE–6
JOSEPH F. HOMER, JR.
& LINDA M. HOMER
AREA ABOUT 793 SF

PARCEL TE–7
MANSFIELD SPRING
BROOK CEMETERY CORP.
AREA ABOUT 798 SF

PARCEL TE–23
MAJORIE R. ENGLER &
KIMBERLY WINSNIEWSKI
AREA ABOUT 32 SF

PARCEL TE–24
NANCY L. KELLEY
AREA ABOUT 203 SF

PARCEL TE–25
ALAA A. HOSNY
AREA ABOUT 194 SF

0 20 50 100
SCALE: 1" = 20'

MANSFIELD
SCHOOL STREET

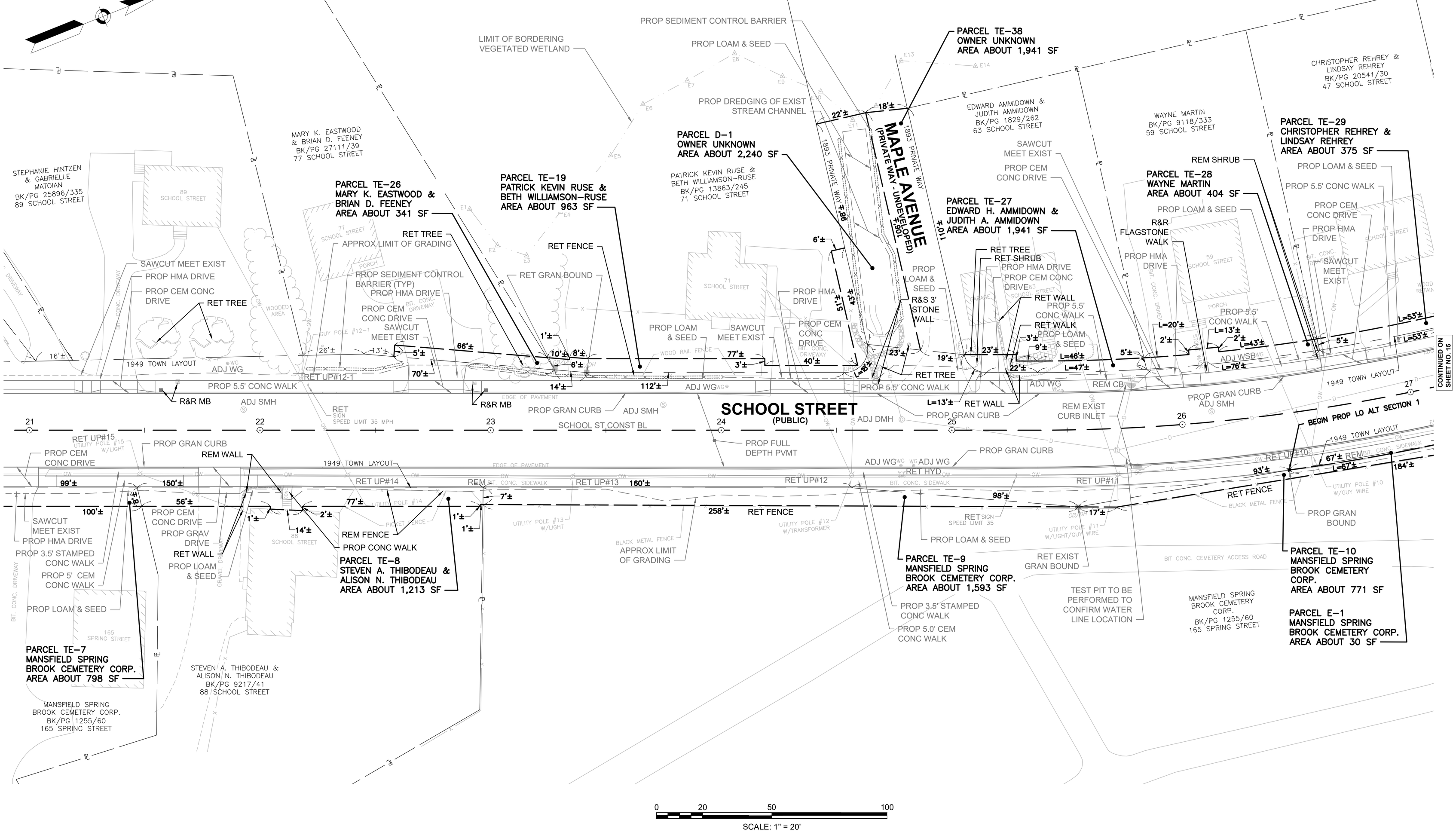
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	14	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
PROPERTY PLAN
SHEET 3 OF 5

609255_RW(PROP).DWG Plotted on 10-Apr-2024 4:03 PM

Proposal No. 609255-130934

A00871 - 44



MANSFIELD
SCHOOL STREET

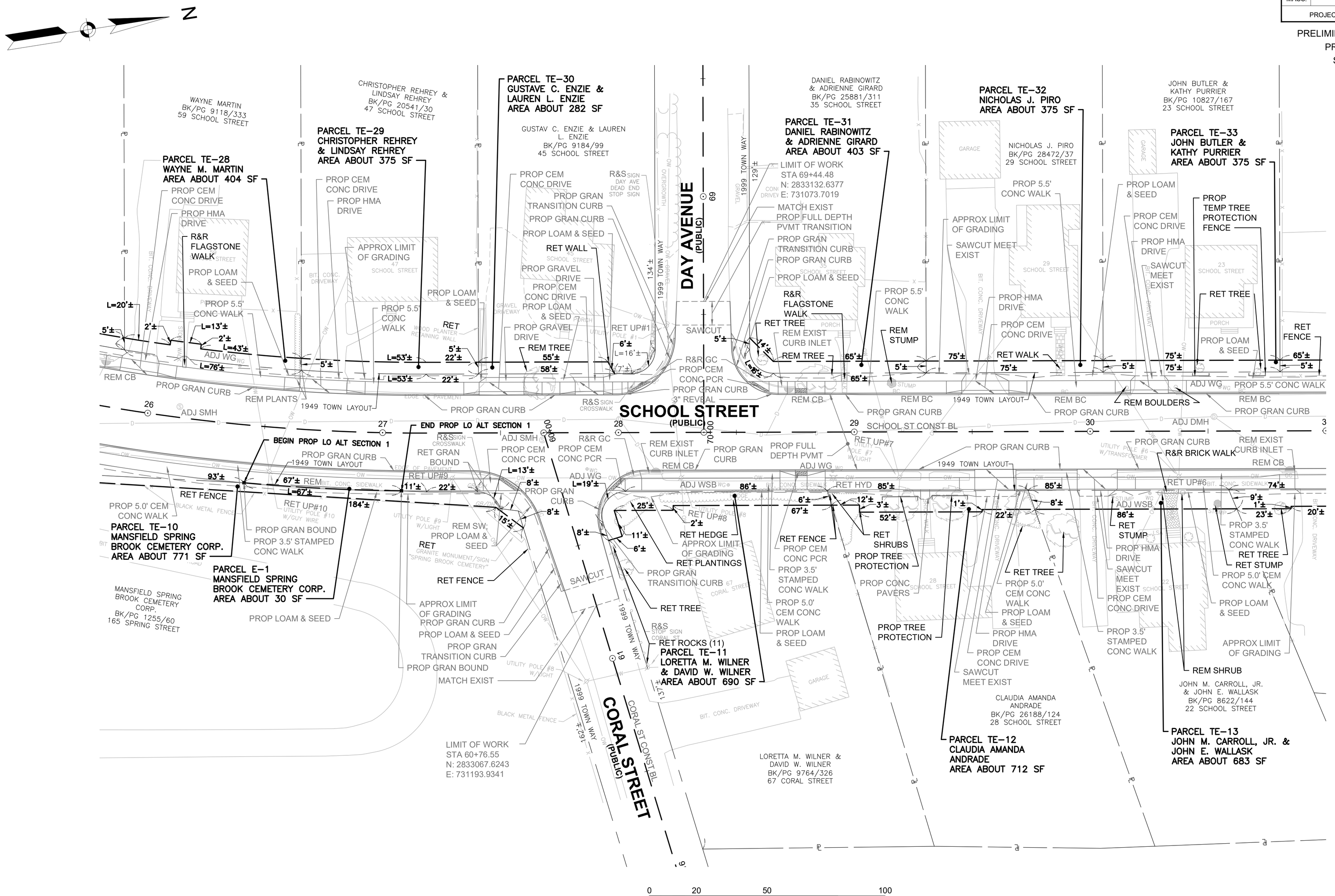
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	15	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY
PROPERTY PLAN
SHEET 4 OF 5

609255_RW(PROP).DWG Plotted on 10-Apr-2024 4:03 PM

Proposal No. 609255-130934

A00871 - 45



MANSFIELD
SCHOOL STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	TBD	16	16
PROJECT FILE NO. 609255			

PRELIMINARY RIGHT OF WAY PROPERTY PLAN
SHEET 5 OF 5

609255_RW(PROP).DWG Plotted on 10-Apr-2024 4:03 PM

Proposal No. 609255-130934

A00871 - 46

N

PARCEL TE-33
JOHN BUTLER & KATHY PURRIER
AREA ABOUT 375 SF

PARCEL TE-34
THE DAVID S. CASS REVOCABLE TRUST OF 2023
AREA ABOUT 441 SF

PARCEL TE-35
CATHY A. MCGOWAN
AREA ABOUT 405 SF

PARCEL TE-18
SCOTT M. MORRISION
AREA ABOUT 372 SF

PARCEL TE-17
MANSFIELD CONGREGATION JOHOVAHS WITNESSES, INC.
AREA ABOUT 325 SF

PARCEL TE-15
MICHAEL FARESE
AREA ABOUT 731 SF

PARCEL TE-14
KENNETH J. DONNELLY & MARY U. WHEELER
AREA ABOUT 626 SF

PARCEL TE-13
JOHN M. CARROLL, JR. & JOHN E. WALLASK
AREA ABOUT 683 SF

JOHN BUTLER & KATHY PURRIER
BK/PG 10827/167
23 SCHOOL STREET

THE DAVID S. CASS REVOCABLE TRUST OF 2023
BK/PG 28433/301
17 SCHOOL STREET

CATHY A. MCGOWAN
BK/PG 2422/334
9 SCHOOL STREET

N/F
KYLE CHACE
BK/PG 26209/293
168 WEST STREET

SCOTT M. MORRISION
BK/PG 20644/67
1 SCHOOL STREET

N/F
SCOTT MACINTYRE & SUSAN MACINTYRE
BK/PG 10947/82
173 WEST STREET

N/F
ALFONSE E. BIELAN, JR.
& CAROL A. BIELAN
BK/PG 1663/618
167 WEST STREET

N/F
PETER S. WALTERS
BK/PG 14277/311
12 CENTRAL STREET

N/F
RICHARD S. ROCKWELL & JUDITH A. PETERSON
BK/PG 27641/245
2-4 CENTRAL STREET

KENNETH J. DONNELLY & MARY U. WHEELER
BK/PG 24188/265
18 SCHOOL STREET

MICHAEL J. FARESE
BK/PG 26504/54
14 SCHOOL STREET

MANSFIELD CONGREGATION JEHOVAHS WITNESSES, INC.
BK/PG 1803/4
BK/PG 1669/1144
BK/PG 1683/862
6 SCHOOL STREET

BLISS AVENUE (PUBLIC)
SCHOOL STREET (PUBLIC)
WEST STREET (PUBLIC)
COPELAND DRIVE (PUBLIC)

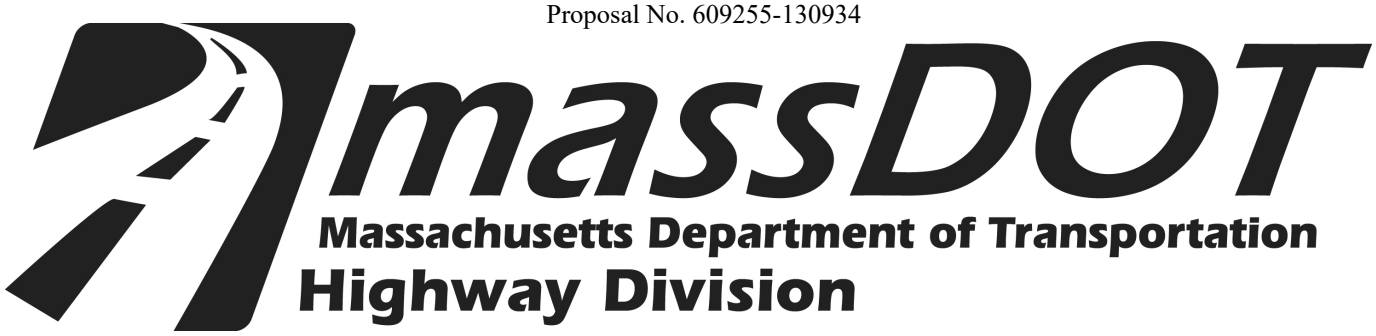
1916 TOWN LAYOUT
1949 TOWN LAYOUT
1893 TOWN LAYOUT
1954 SHLO NO. 4230

PROJECT END
STA 33+54.13
N2833635.8688
E731208.1315

BEGIN R&R GRAN CURB +34
END R&R GRAN CURB +34
BEGIN R&R GRAN CURB +07
END PROP GRAN CURB +07
END FULL DEPTH PVMT & END MILL & OVERLAY STA +13
80+00

CONTINUED ON SHEET NO. 15

0 20 50 100
SCALE: 1" = 20'



VIRTUAL DESIGN PUBLIC HEARING

APRIL 11, 2023

Proposed Multimodal Accommodation On

School Street,

From Spring Street to West Street project

PROJECT FILE NO. 609255
Project Management

IN MANSFIELD, MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

JONATHAN L. GULLIVER
HIGHWAY ADMINISTRATOR

CARRIE E. LAVALLEE, P.E.
CHIEF ENGINEER

PANELISTS

Aidee Cira, Project Manager

Craig Sheehan, Right-of-Way

Richard Madsen, MassDOT, District 5

Leah Grodstein, Producer

Adetoyin Olaoye, Producer

Jamie Pisano, P.E., VHB Project Manager

Kevin Dumas, Town of Mansfield, Town Manager

John Reinke, Town of Mansfield, DPW

Director

SPEAKER INDEX

Name	**Page**
Aidee Cira, Project Manager	3, 7, 16, 23, 25, 27-30, 33, 34
Craig Sheehan, Right-of-Way	14
Adetoyin Olaoye, Producer	4, 19, 23, 25-27, 29-30, 32-34, 35
Jamie Pisano, P.E., VHB Project Manager	25, 29, 31, 32
Kevin Dumas, Town of Mansfield, Town Manager	19, 23, 26, 28
Josh Reinke, Town of Mansfield, DPW Director	26, 28, 29, 31

ALSO PRESENT: General Audience

P R O C E E D I N G S

MS. CIRA: Good evening. My name is Aidee Cira. I am the Project Manager for the proposed Multimodal Accommodation on School Street, from Spring Street to West Street Photograph.

I work in the Project Management Section at the Massachusetts Department of Transportation's Highway Division with Headquarters in Boston.

During this presentation, we will discuss the existing issues in the project area and explain the proposed design. The purpose of this meeting is to inform the public of the project and solicit feedback.

Project Team and Panel: I'm here with the Project Team and the Panelists for tonight's presentation. Joining me here are: Richard Madsen from MassDOT, District 5; Craig Sheehan from MassDOT's Right-of-Way Bureau; Kevin Dumas, Mansfield Town Manager; and Josh Reinke, Mansfield DPW Director; Jaime Pisano with VHB, Town's Design Consultant for the project; and Melissa Lupo, Stenographer from

Advanced Court Reporting LLC, who will be making a verbatim transcript of tonight's hearing. I will now introduce Leah Grodstein and Adetoyin Olaoye, who are the Producers and Facilitators of this hearing.

MS. OLAOYE: Thank you, Aidee. My name is Addy Olaoye, and I'm one of the MassDOT Producers this evening, providing tech support and facilitating questions.

Let me take a moment to go over some Zoom basics. You all joined this meeting muted and without video.

But we will have a Q&A session later where you will be able to unmute your microphone with the Microphone icon. You can also use the Raise Hand icon to indicate that you wish to speak and the Q&A icon to send us a written question. We will answer the questions at the end of the presentation.

If you need to call into the meeting, you can call 646-931-3860, and use Webinar ID 853 6164 9955. Zoom Tech Support can be reached at 1-888-799-9666.

To use closed captioning generated by

Zoom, click on the Closed-Caption button. Just remember, they may not be entirely accurate. You can also use the View button in the upper righthand corner to adjust the meeting view settings.

Public Meeting Notes and Procedures: Public Record. While this virtual public hearing is not being recorded, MassDOT may choose to retain and distribute the images, audio, and the Q&A transcript from this hearing.

All parts of this hearing are considered public records. If you are not comfortable being recorded, please refrain from using the Q&A feature, or you may choose to excuse yourself from the hearing. Information from this hearing will be posted on the mass.gov website.

Important Notes: your microphone and webcam and automatically disabled upon entering the hearing. This hearing will be open to questions and answers at the end of the presentation.

Please take the time to respond to our survey at the end of the presentation. Your

feedback is important.

Our Stenographer, Melissa Lupo, will be creating a transcript for the entire meeting that is part of the public record. MassDOT may choose to retain and distribute the transcript.

If you type a question or ask one verbally, know that you will be a part of a public record. So please use both functions for project-related business only.

Notice of MassDOT's Policy on Diversity and Civil Rights: all MassDOT activities, including public meetings, are free of discrimination.

MassDOT complies with all Federal and State Civil Right requirements preventing discrimination based on sex, race, color, ancestry, national origin, limited English proficiency, religion, creed, gender, sexual orientation, gender identity or expression, or veteran's status.

We welcome the diversity from across our entire service area. If you have any questions or concerns, please visit www.mass.gov/nondiscrimination-in-

transportation-program to reach the Office of Diversity and Civil Rights.

Thank you for joining our meeting. We appreciate your participation. Please note that we will have a question and answer session at the end of the presentation.

However, feel free to type your questions into the Q&A box as they occur, and we will answer them during the Q&A. All questions and comments are welcome. However, please refrain from any disrespectful comments.

Lastly, a survey will pop up at the end of this hearing. Please take the time to answer it. Your feedback is important to us.

MS. CIRA: Thank you, Addy. Advertisements: the Notice of the design public hearing appear in The Sun Chronicle on March 28th and April 4th, 2023; and the Brockton Enterprise on March 31st and April 7th, 2023.

A copy of this Notice will be attached in the final hearing transcript. Notice and the flyer were also posted on MassDOT website on February 15th, 2023. The hearing was also advertised on MassDOT's social media.

A handout has been prepared and posted other the MassDOT website, along with this presentation. You will find documentation which may be useful to you in understanding the project and submitting formal comments in response to this presentation.

The QR code shown in this slide is to be directed to the MassDOT website. Please feel free to scan it.

Funding: we are currently at the 25-percent design stage for the Multimodal Accommodation on School Street, from Spring Street to West Street Project, which means that the plans are still being developed and we welcome your feedback.

Estimated total project cost is about $5 million. Eighty percent of the cost will be covered by the Federal Aid funding with the Federal Highway Administration.

MassDOT funds the remaining 20 percent. This project must be programmed in the Statewide Transportation Improvement Program in the appropriate Federal fiscal year in order for MassDOT to solicit bids for eventual

construction.

The total estimated cost of the project does not include any right-of-way acquisition costs. The design is expected to be completed in the summer or fall of 2025. Construction is expected to be completed within 24 months after the Notice to Proceed.

Project Overview: the project we will be presenting today is the Multimodal Accommodation on School Street, from Spring Street to West Street.

This slide provides an overview of the topics that will be discussed during this presentation. As you may be aware, the reason for the project is to improve existing roadway conditions, complete missing links for pedestrians and bicycles, improve safety for all users, improve pavement markings and signage, and improve stormwater collection and treatment.

Please keep in mind that the project we are presenting is still in the design stage. The plans are still being developed and we welcome your feedback. All your questions and comments will be taken into consideration as the

project's design advances.

Project Locus: here, we see the limits of the project. The project includes reconstruction of approximately half a mile of School Street from just south of Spring Street to West Street.

How did we get here? The project was initiated in 2018 and approved by the MassDOT Project Review Committee in December of 2018.

The Consultant completed an Alternatives Analysis in October of 2020. A 25-percent design was submitted to MassDOT in August of 2021, which bring us to the design public hearing tonight.

Why was this project initiated? The Town initiated the project to improve pavement conditions, enhance pedestrian facilities and connections, accommodate bicycles, and upgrade pavement markings.

Existing Conditions: the pavement along School Street is in fair condition as the Town continues to maintain the roadway with cracked sealing.

Sidewalks are not consistent along School Street. And bicycles ride within the existing travel lanes.

Now, we will discuss what we want to accomplish and the goals of this project. Project Goals: the goals of this project are to improve mobility for all users -- pedestrians, bicyclists, and motorists; enhance connectivity by constructing sidewalks on both sides; providing bicycle lanes; and reconstructing the roadway; defining the roadway with curbing; and upgrading the pavement markings, as well as the drainage system.

Now, we will discuss the different cross-sectional alternatives that were considered for this project. Alternatives Considered: Alternative 1.

School Street, being an urban minor arterial, requires travel lanes to be a minimum of 11 feet. MassDOT requires sidewalks be at least 5-feet wide, not including the curb.

MassDOT also requires bicycle lanes be a minimum of 5 feet and shared use paths be a minimum of 10 feet. Using this design criteria,

three main alternatives were developed. The first alternative incorporated 11-foot travel lanes, 5-foot bicycle lanes, and 5-foot sidewalks.

Alternative 2: the second alternative incorporated 11-foot travel lanes, 5-foot shoulders, 5-foot sidewalks on the west side, and an 8-foot wide shared use path with a buffer on the east side. Various alternatives of Alternative 2 were evaluated using different buffer and shoulder widths.

Alternative 3: the third alternative incorporated 11-foot travel lanes, 5-foot shoulders, 5-foot sidewalks on the east side, and an 8-foot wide shared use path with a buffer on the west side. Various alternatives of Alternative 3 were evaluated using different buffer and shoulder widths.

What's the preferred alternative? Upon review of each alternative, Alternative 1 was preferred and subsequently advanced to the 25 percent.

Alternative 1 provided 11-foot travel lanes, 5-foot bicycle lanes, and a minimum of

5-foot wide sidewalks on both sides of the roadway.

Alternative 1 satisfy MassDOT design criteria, improved mobility of all users, and enhance connectivity while minimizing impacts to private property, utility infrastructure, and environmental resources.

Proposed Improvements: as you drive north along School Street from Route 140 and approach the Spring Street intersection, the right curb line will be revised, and the Spring Street approach will be redefined with narrowed lanes to facilitate right-turning vehicles exiting this intersection.

From Spring Street north, School Street will be consistent with 11-foot travel lanes, 5-foot bicycle lanes, 5.5-foot sidewalk on the west side, and an 8-foot-wide sidewalk, including a 3-foot buffer. Driveways will be maintained.

Coral Street and Day Avenue will continue to the intersection with school Street under stop conditions. Crosswalks will extend across Coral Street and Day avenue. The

existing School Street crosswalk just south of Day Avenue will be shifted to just north of this street.

Bliss Avenue will continue to the intersection with School Street under stop conditions. A crosswalk will extend across Bliss Avenue.

School Street proposed improvements will transition to match the existing conditions of the School Street approach to West Street. The School Street approach to West Street will provide two travel lanes, one in each direction, and a right-turn lane.

Sidewalks will be extended to meet the existing sidewalks at the School Street and West Street intersection. And that concludes my presentation on the proposed design plans.

Now, I will like to turn the presentation over to Craig Sheehan, representing MassDOT's Right-of-Way Bureau, to discuss the right-of-way procedures.

MR. SHEEHAN: Thank you, Aidee. Good evening. When the Commonwealth, acting through its Massachusetts Department of Transportation,

Highway Division, indicated it would accept this project for funding, your Municipality accepted certain responsibilities.

One of those responsibilities is acquiring all the necessary rights in private and public lands for the design, construction, and implementation of this project.

My function is to review and recommend procedures that your Municipality may use in acquiring these rights. The procedures used must comply with both Federal and State Regulations.

Current design plans indicate that one permanent easement and 17 temporary easements may be required. Property owners impacted by this project will be contacted by your Municipal Officials.

They will present the proposed impacts to each owner and discuss the methods with which they may acquire the needed rights for the project.

Frequently, Municipalities will appeal for donations to minimize the acquisition cost to your community. However, donations are not

required.

And property owners are entitled to an appraisal, review appraisal, and just compensation. Right-of-way documents will be provided to each owner to help them understand the acquisition process and how the project affects their property.

Affected property owners' rights are protected under our Mass. General Laws, primarily c. 79. And because this project is receiving Federal funds, property owners' rights are further defined under Title III of the Real Property Acts of 1970, as amended.

I will be happy to answer any general questions concerning right-of-way activities during the open forum. Thank you.

MS. CIRA: Thank you, Craig. Now, we will discuss what the bicyclists and pedestrians can expect.

Pedestrian and Bicycle Improvements: bicyclists and pedestrians are accommodated in the proposed improvements. Approximately 2,000 feet of 5-foot-wide bicycle lanes will be incorporated into School Street along both sides

of the roadway. A minimum of 5-foot-wide sidewalks along School Street will be added.

What are the environmental, cultural resource, and community impacts? Environmental Permitting: there are minimal environmental impacts at this time.

As the project advances, any impacts identified will be reviewed by the appropriate Agencies. The Town and its residents will be notified and engaged throughout the permitting process.

What's the construction approach? The project intent will be to maintain traffic at all times.

Lane closures will be used during the workday at nonpeak hours. Detours may be considered to expedite the work. Access to businesses and residences will be maintained at all times.

Our Next Steps: after this design public hearing, we will work on the 75-percent design, Environmental Permits, and right-of-way submittals, which we anticipate will be submitted in the fall of 2023.

Following that, the design will be finalized and right-of-way secured. The design is expected to be advertised and bid in 2025.

Now, we will discuss how we can keep you informed. How to Reach Us: your feedback is very important to the success of the project.

In addition to this hearing, we encourage you to reach out to us with written comments. Emailing us at the address shown on the screen is preferred.

We encourage you to do this within 10 business days of this presentation so your comments can be included in the official hearing transcript and incorporated into the design where feasible. Please be sure to include the project number, 609255, in the subject line of your email.

Additional Public Outreach: in addition to the MassDOT's outreach efforts outlined earlier, the Notice and the flyer were posted on various locations.

We'd like to thank the Southeast Regional Planning and Economic Development District; the Town of Mansfield, Council on

Aging; the top-right-Town Chamber of Commerce; and the Attleboro RMV Service Center for distributing the flier and Notice for this hearing.

Questions and Discussion: before we open this forum to the general public, I would like to ask if there are any Public Officials present and if they would like to speak.

I request that those who would like to speak raise your hand and tell your name and title in the Questions and Answers box. We will give it a minute.

MS. OLAOYE: And I just have Kevin Dumas who has raised his hand, Town Manager.

MR. DUMAS: Hello, good afternoon. Good evening. Time's going by fast here, and a very crazy day here today.

But, thank you for the opportunity to be able to jump on with you this evening and to be able to give my words of support for the project.

This is something that I think that the folks of the general public don't

necessarily have the understanding the amount of time and dedication goes into by Town Staff working with our Consultant on this project with VHB, Jaime Pisano, who's here on our call tonight.

To be able to go through and to get projects ready for the funding that's available from the Commonwealth; so I know that it's was talked about earlier tonight, talking about the scope of the project and the fact the Town puts the design funds in place in order to be ready for the 80-percent funding match by 20 percent from the State, in order to have that constructed at no cost to the residents of Mansfield, which I think is really important that we can take important corridors, such as this section of School Street, from Spring Street up to West Street, to be able to make those multimodal accommodations.

So whether or not that you're walking or you're driving, or you're using your bicycle, that we have a brand-new roadway with some improved drainage, and the proper markings.

And the fact that we will end up with

sidewalks on both sides of this project versus the one side that exists today, that we have for a better user experience, right, from soup-to-nuts on this section of roadway.

So, I thank the Department of Public Works Highway Division, Public Works Administration under the direction of our DPW Director, Josh Reinke, for making sure the funds could be provided through our Road Bond, for the design that leads to that $5 million-worth of an infusion into the Town of Mansfield, where not just the general motorists and the general public who may be biking or walking through this area, but that we also provide for a wonderful opportunity for all of our other 23,000, 24,000 residents in the Town and people who work in the Town of Mansfield and come to traversing this very populated area.

And we'd be very happy that this project that will start in fiscal 2025, to be able to have something within a year completely finished and reconstructed for a better use for anybody who passes through this area.

We're really excited about this

opportunity. And most excited that the $5 million that's coming from the Federal and State Government, and the fact that the Town did put some design dollars to good use. But we're really excited about this project.

I know that the Town has also publicized this. We talk about this at our Selectboard Meetings.

Josh, our DPW Director, also has a Roadway Construction tab on the Highway Division's website with the Town of Mansfield that people can see.

And of course, we highlight a section right across the top that says MassDOT Projects, which is great. So any of the MassDOT Projects, including this one, gives the status of where we are and that people can watch these presentations.

So, Aidee, I know that when we're finished and then when you have the opportunity, you'll send us the final link. Josh will put that onto the website, so anyone else in the future can be able to go through to see what this project is all about.

And it's part of what we do for the openness and transparency that we can talk about our Town projects, and especially those that we've partnered with the Commonwealth of Massachusetts.

So I thank you for a couple of moments tonight to be able to plug in a couple of words here, and appreciate all of the involvement from VHB to certainly our MPO.

And we're working very closely with SRPEDD and all of our -- or our partners and communities that help fund a Transportation Improvement Program for our region, and that we actively participate in those meetings, and that we're just glad to be a part of it and an active member in our region. So, thank you so much for tonight.

MS. CIRA: Thank you, Mr. Dumas, who is the Mansfield Town Manager and is also with our Panel tonight. I will now turn it over to Addy to explain how to participate virtually in questions and answers.

MS. OLAOYE: Thank you, Aidee. Question and Answers: to ask a question

verbally, click the Raise Hand icon.

And Leah will give you access to unmute your microphone. You'll need to unmute it yourself to be heard.

If you prefer to type your question, you can click on the Q&A icon and write your question. And the question will be read out loud. For both methods, please ask only one question at a time so everyone gets a chance to participate.

A final reminder that once you exit the Zoom webinar, a survey will automatically pop up. Please take a minute to fill it out.

It's very short. And your feedback is very important to us. And we will now -- let's see if we have any questions in the Q&A.

For right now, we don't have any questions in the Q&A. So, you can click on the Raised Hand icon or you can type your question by clicking on the Q&A icon and typing in your question.

If you have any questions or comments, you may do so at this time. Okay. We have a question from Kathy Butler who asks, "Will the

sidewalks be concrete with granite curbing?"

MS. CIRA: Jamie, could you, VHB, respond to that?

MR. PISANO: Yes, Jamie Pisano with VHB. And Kathy, yes. The answer is yes. The sidewalks will be concrete and the curbing will be granite.

MS. OLAOYE: Thank you for your answer. So if you have a question about any -- okay.

We have a question from Jim Mood, who asks, "Are there any considerations for typing -- for tying into the Route 140/School Street crossing, or improvements for that crossing?"

MS. CIRA: Can you repeat the question, Addy?

MS. OLAOYE: "Are there any considerations for tying into the Route 140/School Street crossing, or improvements for that crossing?"

MS. CIRA: So, at this time, it's -- at this time, it's premature to provide any feedback related to any crossing for that. It will be something that will have to be discussed

for future projects. I would like to ask the Town if there are any projects for any tie into that -- into the intersection with 140 and 106.

MR. REINKE: Hi, there. Josh Reinke, here, Mansfield DPW Director. So currently that intersection is not planned for any improvements, though that's something we will look at in the future.

As some may know, we have improvements coming to the Route 106/140 intersection project. So as of right now, those are the only improvements at the 140 crossing.

MS. OLAOYE: Thank you.

MR. DUMAS: Just one more thing to note on that is the fact that that's owned by the Commonwealth of Massachusetts and that's not to be designed by the Town of Mansfield.

So that would be a MassDOT District 5 Project, because that process is -- we're stopping at the Town layout of School Street. So where the project begins and end, particularly after Spring, there's a delineation in the roadway.

We stop where the Town owns the

roadway. In the future, if the State decides to do improvements to that intersection at 140 and School Street, then they would then come in and tie into where the Town left off on this particular project.

MS. OLAOYE: And thank you for your answer. And we have another question from Jim Mood who asks, "The project sidewalks and bike lanes end about Route 140 divided highway, which is tough to cross." He's curious about it.

Then he says also that it kind of makes sense. Thank you for your answer.

MS. CIRA: So this project goes from Spring Street to just south of West Street intersection. Would you like to repeat the question, Addy? I would like to know if this answers the question.

MS. OLAOYE: Okay. Let's see. He had stated that, "The project sidewalks and bike lanes end right about Route 140, just before you get, like, to the divided highway, which is tough to cross."

But he was just curious about the ends

of the project. And also in regards to sidewalks and bike lanes, where it ends.

MS. CIRA: For any additional information on this project, there is a handout. If -- there is a QR code that is shown on the screen right now.

There is a handout that has an explanation of this project with the project limits for any additional details on this. If you would like to follow up with additional questions or additional information, you can email us to the email shown on the slide, massdotprojectmanagement@dot.state.ms.us.

Please send us an email within 10 days after this public hearing. And we will reply to you if any additional information -- if you would like to have more information on this. Thank you.

MR. REINKE: Aidee, can I just add to that and echo what Mr. Dumas said? That portion of 140 is State-controlled portion of roadway there.

So, if there's any sort of accommodations in the works for bike

accommodations across 140, it would be sort of driven by MassDOT.

MS. CIRA: Thank you.

MS. OLAOYE: Thank you.

MR. REINKE: Thank you.

MS. OLAOYE: Thank you for your answer. We have a question from Patrick Ruse who asks, "With the reduction of the road width, is the plan to reduce the speed limit?"

MR. PISANO: Aidee, you want me to take that one now?

MS. CIRA: Yes, please.

MR. PISANO: Yeah, so, Patrick, there's no plan to reduce the speed limit within the project area. But the intent of striping the lanes will hopefully encourage people to slow down, as it'll feel like a narrower roadway.

MS. OLAOYE: Thank you for your answer, Jamie. We have a question from Todd Johnston, who asks, "What is the estimate, or how long the construction would take?"

MR. PISANO: Again, Aidee, if you don't mind, I'll jump in here, as well. So,

Todd, I could just give you an estimate right now in terms of hopefully it would be a construction season, which would be one year.

In our presentation, we put it as two years. But at 75 percent, we will have a Contract time determination developed, which will provide that information. So it will be something that we can update the public on in the future.

MS. CIRA: Thank you, Jamie. And as you mentioned, 24 months is anticipated, the construction time.

And still, the project is in the design stage. And if you have additional comments, you can always email us. Thank you.

MS. OLAOYE: Thank you, Aidee. We have another question from Lauren Olesch, who asks:

"I am not sure if there is anything that can be done. But I would like to mention we have daily challenges backing out of our driveway, due to people turning and accelerating quickly onto the School Street from

Route 140. Is this something that could be addressed?"

MR. PISANO: So, again, Aidee, if you want me to jump in. So, Lauren, I'm assuming that you're south of Spring Street just as you would take the right from 140, heading onto School Street north.

If you're in that area, you're actually within the State layout, as the Town Manager, Kevin Dumas, and DPW Director Josh Reinke were mentioning earlier.

So that is outside of the project limits that we have here. So there wouldn't be anything that we could address from that point of view.

MR. REINKE: I think I'll -- if I could just jump in to assist this person, as well? She could certainly reach out to me.

And we can see what can be done. These are often case-by-case assessments. And we, as the Town, could step in and sort of assist where we can.

But really it depends on the particulars of your driveway and location, as

Jamie just mentioned there. So, I don't know.

I can type an answer in here and give her my email. Or otherwise, mansfieldma.com, she can find my contact info.

MS. OLAOYE: Thank you for answer, Jamie and Josh. She says -- Lauren Olesch says, "Yes, I will email you. Thank you very much."

We have a question from Kathy Butler who asks, "Heading from West Street towards Route 140, how much footage is needed for the sidewalk and bike lane combined?"

MR. PISANO: Again, Aidee, I'll just jump in on this piece. In our proposed conditions, Kathy, we have the bike lane at 5 feet. That's the minimum criteria.

We also -- we would -- if you get the chance to go back through the presentation, it'll show that the sidewalk is 5.5 feet on that west side of the roadway.

And that's -- the minimum sidewalk is 5 feet, based on design criteria. And the extra half a foot includes the curbing.

If you were going to develop a shared use path, as we've presented in some of the

alternatives, that's roughly 10 feet is the minimum that would accommodate bikes and pedestrians.

MS. OLAOYE: Thank you, Jamie, for your answer. Right now, we do not have any open questions.

So if you have a question or a comment, you may click on the Raised Hand icon to ask your question verbally. Or you can type your question into the Q&A.

You may also send an email comments to massdotprojectmanagement@dot.state.ma.us. Or you can submit your written comment to Carrie Lavallee, P.E., Chief Engineer for the MassDOT, 10 Park Plaza, Boston, Mass. 02116, Attention Highway Design, Project File Number 609255.

You can either type in your question right now into the Q&A. Or you can click on the Raised Hand icon. We still have a little more time to address questions or comments that you may have.

MS. CIRA: Thank you, Addy. I would like to repeat what was mentioned earlier

regarding your feedback, which is very important to the success of the project.

We encourage you to reach out to us with written comments in the email mentioned earlier by Addy. You can send us an email.

We encourage you to do this within 10 business days of this presentation, so that your comments can be incorporated into the design, where feasible.

When you send your comments, please be sure to include the project number, 609255, in the subject line of your email. If there are no additional --

MS. OLAOYE: Also, at the end of this meeting, a survey's going to pop up. Please take some time to fill out this survey. We appreciate your feedback. Yes, Aidee.

MS. CIRA: Thank you, Addy. This concludes our hearing today on the proposed Multimodal Accommodation on School Street, from Spring Street to West Street Project.

We thank you for joining us tonight. And again, your comments are always appreciated. Thank you.

MS. OLAOYE: Thank you, everyone.

(Meeting adjourned at 7:14 p.m.)

C E R T I F I C A T E

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF NORFOLK, SS

I, Melissa Lupo, a Professional Court Reporter and Notary Public in and for the Commonwealth of Massachusetts, do hereby certify that the foregoing Massachusetts Department of Transportation Public Hearing was taken by me on April 11, 2023.

The said testimony was taken audiographically and then transcribed under my direction. To the best of my knowledge, the within transcript is a complete, true and accurate record of said Meeting.

I am not connected by blood or marriage with any of the said parties, nor interested directly or indirectly in the matter in controversy.

In witness whereof, I have hereunto set my hand and Notary Seal this 24th day of April 2023.

Melissa Lupo

NOTARY PUBLIC
My Commision Expires
April 28, 2028

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

MANSFIELD

For: **Multimodal Accommodation on School Street, from Spring Street to West Street**

COMMONWEALTH OF MASSACHUSETTS

LOCATION

The work referred to herein is in the Town of MANSFIELD 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:

School Street

Beginning – Station 12+18.80 +/-
Ending –Station 33+54.13 +/-

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 **1055 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 # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
101.	0.1	CLEARING AND GRUBBING AT _____ PER ACRE		
102.1	100	TREE TRIMMING AT _____ PER FOOT		
102.521	210	TREE AND PLANT PROTECTION FENCE AT _____ PER FOOT		
103.	3	TREE REMOVED - DIAMETER UNDER 24 INCHES AT _____ EACH		
104.	2	TREE REMOVED - DIAMETER 24 INCHES AND OVER AT _____ EACH		
105.	1	STUMP REMOVED AT _____ EACH		
120.	5,800	EARTH EXCAVATION AT _____ PER CUBIC YARD		
121.	300	CLASS A ROCK EXCAVATION AT _____ PER CUBIC YARD		
123.	40	MUCK EXCAVATION AT _____ PER CUBIC YARD		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
141.1	105	TEST PIT FOR EXPLORATION AT _____ PER CUBIC YARD		
142.	450	CLASS B TRENCH EXCAVATION AT _____ PER CUBIC YARD		
144.	30	CLASS B ROCK EXCAVATION AT _____ PER CUBIC YARD		
145.	1	DRAINAGE STRUCTURE ABANDONED AT _____ EACH		
146.	21	DRAINAGE STRUCTURE REMOVED AT _____ EACH		
151.	2,900	GRAVEL BORROW AT _____ PER CUBIC YARD		
151.01	120	GRAVEL BORROW - TYPE C AT _____ PER CUBIC YARD		
151.2	860	GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES AT _____ PER CUBIC YARD		
156.	400	CRUSHED STONE AT _____ PER TON		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
170.	11,200	FINE GRADING AND COMPACTING - SUBGRADE AREA AT _____ PER SQUARE YARD		
180.01	1	ENVIRONMENTAL HEALTH AND SAFETY PROGRAM AT _____ LUMP SUM		
180.02	40	PERSONAL PROTECTION LEVEL C UPGRADE AT _____ PER HOUR		
180.03	40	LICENSED SITE PROFESSIONAL SERVICES AT _____ PER HOUR		
181.11	2,400	DISPOSAL OF UNREGULATED SOIL AT _____ PER TON		
181.12	550	DISPOSAL OF REGULATED SOIL - IN-STATE FACILITY AT _____ PER TON		
181.13	350	DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY AT _____ PER TON		
181.14	200	DISPOSAL OF HAZARDOUS WASTE AT _____ PER TON		
201.	22	CATCH BASIN AT _____ EACH		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
202.	17	MANHOLE AT _____ EACH		
203.	1	SPECIAL MANHOLE AT _____ EACH		
220.	43	DRAINAGE STRUCTURE ADJUSTED AT _____ EACH		
220.5	5	DRAINAGE STRUCTURE REMODELED AT _____ EACH		
220.7	11	SANITARY STRUCTURE ADJUSTED AT _____ EACH		
220.8	2	SANITARY STRUCTURE REMODELED AT _____ EACH		
221.	18	FRAME AND COVER AT _____ EACH		
222.1	21	FRAME AND GRATE - MASSDOT CASCADE TYPE AT _____ EACH		
224.10	11	10 INCH HOOD AT _____ EACH		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
224.12	11	12 INCH HOOD AT _____ EACH		
227.3	70	REMOVAL OF DRAINAGE STRUCTURE SEDIMENT AT _____ PER CUBIC YARD		
227.31	2,730	REMOVAL OF DRAINAGE PIPE SEDIMENT AT _____ PER FOOT		
238.10	260	10 INCH DUCTILE IRON PIPE AT _____ PER FOOT		
238.12	20	12 INCH DUCTILE IRON PIPE AT _____ PER FOOT		
241.12	300	12 INCH REINFORCED CONCRETE PIPE CLASS III AT _____ PER FOOT		
241.24	20	24 INCH REINFORCED CONCRETE PIPE CLASS III AT _____ PER FOOT		
242.24	1	24 INCH REINFORCED CONCRETE PIPE FLARED END AT _____ EACH		
243.12	90	12 INCH REINFORCED CONCRETE PIPE CLASS IV AT _____ PER FOOT		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
244.12	40	12 INCH REINFORCED CONCRETE PIPE CLASS V AT _____ PER FOOT		
258.	15	STONE FOR PIPE ENDS AT _____ PER SQUARE YARD		
271.12	100	12 INCH AND UNDER PIPE REMOVED AND STACKED AT _____ PER FOOT		
303.06	50	6 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) AT _____ PER FOOT		
303.12	1,900	12 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) AT _____ PER FOOT		
309.	3,770	DUCTILE IRON FITTINGS FOR WATER PIPE AT _____ PER POUND		
315.12	20	12 INCH WATER MAIN REMOVED AND STACKED AT _____ PER FOOT		
336.1	860	1 INCH PLASTIC WATER PIPE AT _____ PER FOOT		
350.06	5	6 INCH GATE AND GATE BOX AT _____ EACH		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
350.12	11	12 INCH GATE AND GATE BOX AT _____ EACH		
358.1	2	GATE BOX REMOVED AND STACKED AT _____ EACH		
363.1	32	1 INCH CORPORATION COCK AT _____ EACH		
371.12	2	12 INCH COUPLING AT _____ EACH		
376.1	4	HYDRANT - EXCLUDING COST OF HYDRANT AT _____ EACH		
376.3	4	HYDRANT - REMOVED AND STACKED AT _____ EACH		
381.	32	SERVICE BOX AT _____ EACH		
381.2	19	SERVICE BOX REMOVED AND STACKED AT _____ EACH		
381.3	1	SERVICE BOX ADJUSTED AT _____ EACH		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
384.	32	CURB STOP AT _____ EACH		
402.	880	DENSE GRADED CRUSHED STONE FOR SUB-BASE AT _____ PER CUBIC YARD		
415.3	800	PAVEMENT MICRO MILLING AT _____ PER SQUARE YARD		
440.	31,700	CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL AT _____ PER POUND		
443.	20	WATER FOR ROADWAY DUST CONTROL AT _____ PER 1000 GALLONS		
450.23	980	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5) AT _____ PER TON		
450.32	1,325	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0) AT _____ PER TON		
451.	30	HMA FOR PATCHING AT _____ PER TON		
452.	1,400	ASPHALT EMULSION FOR TACK COAT AT _____ PER GALLON		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
453.	11,000	HMA JOINT ADHESIVE AT _____ PER FOOT		
472.	200	TEMPORARY ASPHALT PATCHING AT _____ PER TON		
504.2	1	GRANITE CURB TYPE VA4 - SPLAYED END AT _____ EACH		
506.	2,695	GRANITE CURB TYPE VB - STRAIGHT AT _____ PER FOOT		
506.1	220	GRANITE CURB TYPE VB - CURVED AT _____ PER FOOT		
509.	580	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - STRAIGHT AT _____ PER FOOT		
509.1	170	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - CURVED AT _____ PER FOOT		
514.	21	GRANITE CURB INLET - STRAIGHT AT _____ EACH		
580.	40	CURB REMOVED AND RESET AT _____ PER FOOT		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
594.	400	CURB REMOVED AND DISCARDED AT _____ PER FOOT		
595.	9	CURB INLET REMOVED AND DISCARDED AT _____ EACH		
597.	280	EDGING REMOVED AND DISCARDED AT _____ PER FOOT		
630.2	150	HIGHWAY GUARD REMOVED AND DISCARDED AT _____ PER FOOT		
669.	60	FENCE REMOVED AND STACKED AT _____ PER FOOT		
697.1	45	SILT SACK AT _____ EACH		
698.4	15	GEOTEXTILE FABRIC FOR PERMANENT EROSION CONTROL AT _____ PER SQUARE YARD		
701.	1,640	CEMENT CONCRETE SIDEWALK AT _____ PER SQUARE YARD		
701.1	770	CEMENT CONCRETE SIDEWALK AT DRIVEWAYS AT _____ PER SQUARE YARD		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
701.2	120	CEMENT CONCRETE PEDESTRIAN CURB RAMP AT _____ PER SQUARE YARD		
701.3	510	STAMPED CEMENT CONCRETE WALK AT _____ PER SQUARE YARD		
702.	40	HOT MIX ASPHALT SIDEWALK OR DRIVEWAY AT _____ PER TON		
705.1	5	FLAGSTONE WALK REMOVED AND RESET AT _____ PER SQUARE YARD		
706.1	5	BRICK WALK REMOVED AND RELAID AT _____ PER SQUARE YARD		
710.4	2	BOUND - PLAIN GRANITE AT _____ EACH		
711.	3	BOUND REMOVED AND RESET AT _____ EACH		
715.	12	RURAL MAIL BOX REMOVED AND RESET AT _____ EACH		
722.3	1	SCHEDULE OF OPERATIONS (TYPE C) - FIXED PRICE $35500 AT Thirty Five Thousand Five Hundred Dollars LUMP SUM	$35,500.00	$35,500.00

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
740.	35	ENGINEER'S FIELD OFFICE AND EQUIPMENT (TYPE A) AT _____ PER MONTH		
748.	1	MOBILIZATION AT _____ LUMP SUM		
751.	110	LOAM FOR ROADSIDES AT _____ PER CUBIC YARD		
756.	1	NPDES STORMWATER POLLUTION PREVENTION PLAN AT _____ LUMP SUM		
765.	1,050	SEEDING AT _____ PER SQUARE YARD		
765.551	120	WETLAND SEED - FACW MEADOW MIX AT _____ PER SQUARE YARD		
767.121	780	SEDIMENT CONTROL BARRIER AT _____ PER FOOT		
767.9	120	JUTE MESH AT _____ PER SQUARE YARD		
816.01	1	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1 AT _____ LUMP SUM		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
816.02	1	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 2 AT _____ LUMP SUM		
832.	190	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A) AT _____ PER SQUARE FOOT		
847.1	23	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL AT _____ EACH		
851.1	270	TRAFFIC CONES FOR TRAFFIC MANAGEMENT AT _____ PER DAY		
852.	1,450	SAFETY SIGNING FOR TRAFFIC MANAGEMENT AT _____ PER SQUARE FOOT		
852.11	30	TEMPORARY PEDESTRIAN BARRICADE AT _____ PER FOOT		
852.12	2	TEMPORARY PEDESTRIAN CURB RAMP AT _____ EACH		
853.1	6	PORTABLE BREAKAWAY BARRICADE TYPE III AT _____ EACH		
854.016	17,700	TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED) AT _____ PER FOOT		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
854.036	1,300	TEMPORARY PAVING MARKINGS - 6 INCH (TAPE) AT _____ PER FOOT		
854.6	50	TEMPORARY PORTABLE RUMBLE STRIP AT _____ PER DAY		
856.	100	ARROW BOARD AT _____ PER DAY		
856.12	1,540	PORTABLE CHANGEABLE MESSAGE SIGN AT _____ PER DAY		
859.	19,200	REFLECTORIZED DRUM AT _____ PER DAY		
859.1	430	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS AT _____ PER DAY		
864.031	13	PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC - BIKE LANE RIDER AT _____ EACH		
864.032	13	PAVEMENT LEGENDS REFLECTORIZED PREFORMED THERMOPLASTIC - BIKE LANE ARROW AT _____ EACH		
864.04	100	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC) AT _____ PER SQUARE FOOT		

Project # 609255	Contract # 130934			
Location : MANSFIELD				
Description : Multimodal Accommodation on School Street, from Spring Street to West Street				
ITEM #	**QUANTITY**	**ITEM WITH UNIT BID PRICE WRITTEN IN WORDS**	**UNIT PRICE**	**AMOUNT**
866.106	4,250	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		
866.112	1,050	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC) AT _____ PER FOOT		
867.106	4,100	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) AT _____ PER FOOT		
874.	10	STREET NAME SIGN AT _____ EACH		
874.2	5	TRAFFIC SIGN REMOVED AND RESET AT _____ EACH		
874.4	10	TRAFFIC SIGN REMOVED AND STACKED AT _____ EACH		
903.1	7	PRECAST TRUST BLOCK AT _____ EACH		
Total Qty:	146,873.1			

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DOCUMENT B00853

SCHEDULE OF PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES (DBES)

PRIME BIDDER: _____

DATE OF BID OPENING: _____ PROJECT NO.: 609255

FEDERAL AID PROJECT NO. CMQ/STP-0035(063)X

PROJECT LOCATION: MANSFIELD

Name, Address, and Phone Number(s) of DBE	Name of Activity	(a)† DBE Contractor Activity Amount *Construction Work*	(b) DBE Other Business Amount *Services, Supplies, Material*	(c) Total amount eligible for credit under rules in Section 6 of Document 00719 - DBE Special Provisions
Total Bid Amount	TOTALS:	$	$	$
$	DBE Percentage of Total Bid:	%	%	%

†*Column (a) must be at least one-half of the DBE participation goal. Attach additional sheets as necessary.*

Is MassDOT Document B00855 (Joint Check Approval) being submitted for any of the above? ☐ Yes ☐ No ☐ Not Known at This Time

Will any of the contractors listed above be using a third party (i.e. manufacturer) to deliver materials or perform any portion of work by a third party? ☐ Yes ☐ No

CERTIFICATION: I HEREBY DECLARE, TO THE BEST OF MY KNOWLEDGE, THAT **I HAVE READ THE SPECIAL PROVISIONS FOR PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES - DOCUMENT 00719.** BOTH THIS SCHEDULE AND THE RELEVANT AND ACCOMPANYING LETTER(S) OF INTENT ARE IN FULL COMPLIANCE WITH THE PROVISIONS OF, AND IN ACCORDANCE WITH, TITLE 49 CODE OF FEDERAL REGULATIONS, PART 26 (49 CFR Part 26).

SIGNATURE:_____ DATE_____

NAME AND TITLE (*PRINT*):_____

EMAIL ADDRESS: _____TEL NO.:_____

*** END OF DOCUMENT ***

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DOCUMENT B00854

DISADVANTAGED BUSINESS ENTERPRISES (DBE) PARTICIPATION
LETTER OF INTENT
(To be completed by the DBE – Page 1 of 2)

TO: _____ (Prime Bidder)

FROM: _____ (DBE Firm)

RE: PROJECT NO.: 609255 FEDERAL AID PROJECT NO.: CMQ/STP-0035(063)X

PROJECT LOCATION: MANSFIELD

DATE OF BID OPENING: _____

I, _____, authorized signatory of the above-referenced DBE firm hereby declare:
Print Name

1. My company is currently certified as a Disadvantaged Business Enterprise (DBE) by the Massachusetts Supplier Diversity Office ("SDO"), formerly known as the State Office of Minority and Women Business Assistance (SOMWBA), as a: (check all applicable, see Section 1 of the Special Provisions For Participation By Disadvantaged Business Enterprises, MassDOT Document 00719 additional guidance is available at Title 49, Code of Federal Regulations, Part 26.55 (49 CFR Part 26.55)):

   ( ) CONTRACTOR ( ) REGULAR DEALER ( ) BROKER
   ( ) MANUFACTURER ( ) TRUCKING OPERATIONS ( ) PROFESSIONAL SERVICES

2. My firm has the ability to manage, supervise and perform the activity described on page 2 of this Letter of Intent. If you are awarded the contract, my company intends to enter into a contract with your firm to perform the items of work or other activity described on the following sheet for the prices indicated.

3. There have been no changes affecting the ownership, control or independence of my company since my last certification review on _____ ___, 20___. If any such change is planned or occurs prior to my company's completion of this proposed work, I will give prior written notification to your firm and to the Massachusetts Department of Transportation ("MassDOT") Office of Civil Rights and SDO.

4. I have read the MassDOT proposal for the Project which may be entitled "Project Contract Documents and Special Provisions" or the draft "Contract" which includes MassDOT Document 00719, and acknowledge that my company will comply with that document and the requirements of 49 CFR Part 26.

5. For the purpose of obtaining subcontractor approval from MassDOT, my firm will provide to you:

   A. ***The following construction work:***
      (i) a resume, stating the qualifications and experience, of the superintendent or foreperson who will supervise on site-work;
      (ii) a list of equipment owned or leased by my firm for use on this project; and
      (iii) a list of all projects (public or private) upon which my firm is currently performing, is committed to perform, or intends to make a commitment to perform. I shall also include, for each project: the name and telephone number of a contact person for the contracting authority, person, or organization; the dollar value of the work; a description of the work; and my firm's work schedule for the project.

   B. ***The following services, materials or supplies***:
      (i) a written agreement and invoices for the materials or supplies, and any other documents evidencing the terms of providing such items;
      (ii) information concerning brokers fees and commissions for providing services or materials; and
      (iii) a statement concerning whether my firm intends or will be required to use a joint check arrangement; and any other documents that may be required by MassDOT.

_____ Date_____
DBE Company Authorized Signature

DISADVANTAGED BUSINESS ENTERPRISES (DBE) PARTICIPATION
LETTER OF INTENT
(To be completed by the DBE – Page 2 of 2)

DATE OF BID OPENING: _____

PROJECT NUMBER: 609255

FEDERAL AID PROJECT NUMBER: CMQ/STP-0035(063)X

PROJECT LOCATION: MANSFIELD

PRIME BIDDER: _____

DBE COMPANY NAME: _____

Item number if applicable	NAICS Code	Description of Activity with notations such as Services, or Brokerage, Installation Only, Material Only, or Complete	Quantity	Unit Price	Amount
			TOTAL AMOUNT:		

Please give full explanations, attach additional sheets if necessary.

I HEREBY VERIFY THAT _____ WILL SOLELY
(DBE company name)
PERFORM THE WORK, OR PROVIDE THE SERVICES OR MATERIALS, AS DESCRIBED ABOVE.

DBE AUTHORIZED SIGNATURE: _____

NAME AND TITLE (PRINT):_____

TELEPHONE NUMBER: _____FAX NUMBER: _____

EMAIL ADDRESS: _____

Rev'd 9/20/19

*** END OF DOCUMENT ***

DOCUMENT B00855

DBE JOINT CHECK ARRANGEMENT APPROVAL FORM

(to be submitted by Prime Contractor)

Contract No: 130934 **Project No.** 609255 **Federal Aid No.:** CMQ/STP-0035(063)X

Location: MANSFIELD **Bid Opening Date:** _____

Project Description: Multimodal Accommodation on School Street, from Spring Street to West Street

We have received the attached request for the use of a joint check arrangement from _____ _____ , a DBE on the above- referenced Contract and _____ _____, a Material Supplier/Vendor for the subject Contract. The DBE has complied with the requirements of 49 CFR Part 26.55(c)(1). In particular, the DBE has:

- a written agreement with the material supplier/vendor;
- applied for credit with the subject material supplier and has supplied the vendor's response;
- shown that it will place all orders to the subject material supplier/vendor;
- made and retains all decision-making responsibilities concerning the materials; and
- provided a Joint Check Agreement that is acceptable to MassDOT;

As the Contractor for the Project, we agree to issue joint checks (made payable to the Material Supplier/Vendor and the DBE) for payment of sums due pursuant to invoices from the Supplier/Vendor and DBE.

Contractor:

_____ _____
Company Name Signature
Duly Authorized

_____
Printed Name

_____ _____
Date Title

SubContractor:

_____ _____
Company Name Signature –
Duly Authorized

_____
Printed Name

_____ _____
Date Title

*** END OF DOCUMENT ***

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DOCUMENT B00856

JOINT VENTURE AFFIDAVIT

(All Firms)

- All Information Requested By This Schedule Must Be Answered. Additional Sheets May Be Attached.
- If, there is any change in the information submitted, the Joint Venture parties must inform MassDOT Pre-Qualifications Office (and, if one of the companies is a DBE, the Director of Contract Compliance, Office of Civil Rights) *prior* to such change, in writing, either directly or through the Prime Contractor if the Joint Venture is a subcontractor.
- If the Joint Venture Entity will be the bidder on a prime Contract, it must bid and submit all required documents (insurance, worker's compensation, bonds, etc.) in the name of the Joint Venture Entity.

I. Name of Joint Venture: _____

Type of Entity if applicable (Corp., LLC):_____Filing State _____

Address of joint venture: _____

_____

Phone No(s) for JV Entity: _____E-mail:_____

Contact Person(s)_____

Tax ID/EIN of Joint Venture: _____Vendor Code:_____

II. Identify each firm or party to the Joint Venture:

Name of Firm: _____

Address: _____

Phone : _____E-mail:_____

Contact person(s) _____

Name of Firm: _____

Address: _____

Phone: _____E-mail:_____

Contact Person(s)_____

III. Describe the role(s) of the each party to the Joint Venture:

_____

_____

IV. Attach a copy of the Joint Venture Agreement. The proposed Joint Venture Agreement should include specific details including, but not limited to: (1) the contributions of capital and equipment; (2) work items to be performed by each company's forces, (3) work items to be performed under the supervision of any DBE Venturer; (4) the commitment of management, supervisory and operative personnel employed by the DBE to be dedicated to the performance of the Project; and (5) warranty, guaranty, and indemnification clauses.

V. Attach any applicable Corporate or LLC Votes, Authorizations, etc.

VI. Ownership of the Joint Venture:

A. What is the percentage(s) of each company's ownership in the Joint Venture?

ownership percentage(s): _____

ownership percentage(s): _____

B. Specify percentages for each of the following (provide narrative descriptions and other detail as applicable):

1. Sharing of profit and loss: _____

2. Capital contributions:

(a) Dollar amounts of initial contribution: _____

(b) Dollar amounts of anticipated on-going contributions: _____

(c) Contributions of equipment (specify types, quality and quantities of equipment to be provided by each firm): _____

_____

4. Other applicable ownership interests, including ownership options or other agreements, which restrict or limit ownership and/or control:

_____

_____

5. Provide copies of all other written agreements between firms concerning bidding and operation of this Project or projects or contracts.

6. Identify all current contracts and contracts completed during the past two (2) years by either of the Joint Venture partners to this Joint Venture:

_____

_____

VII. Control of and Participation in the Joint Venture. Identify by name and firm those individuals who are, or will be, responsible for and have the authority to engage in the following management functions and policy decisions. (Indicate any limitations to their authority such as dollar limits and co-signatory requirements.):

A. Joint Venture check signing:

_____

_____

B. Authority to enter Contracts on behalf of the Joint Venture:

_____

_____

C. Signing, co-signing and/or collateralizing loans:

_____

_____

D. Acquisition of lines of credit:

_____

_____

E. Acquisition and indemnification of payment and performance bonds:

_____

_____

F. Negotiating and signing labor agreements:

_____

_____

G. Management of contract performance. *(Identify by name and firm only)*:

1. Supervision of field operations: _____
2. Major purchases: _____
3. Estimating: _____
4. Engineering: _____

VIII. Financial Controls of Joint Venture:

A. Which firm and/or individual will be responsible for keeping the books of account?

_____

_____

B. Identify the "Managing Partner," if any, and describe the means and measure of their compensation:

_____

_____

C. What authority does each firm have to commit or obligate the other to insurance and bonding companies, financing institutions, suppliers, subcontractors, and/or other parties participating in the performance of this Contract or the work of this Project?

_____

IX. Personnel of Joint Venture: State the approximate number of personnel (by trade) needed to perform the Joint Venture's work under this Contract. Indicate whether they will be employees of the majority firm, DBE firm, or the Joint Venture.

	Firm 1 (number)	Firm 2 (number)	Joint Venture (number)
Trade			
Professional			
Administrative/Clerical			
Unskilled Labor			

Will any personnel proposed for this Project be employees of the Joint Venture?: _____

If so, who: _____

A. Are any proposed Joint Venture employees currently employed by either firm?

Employed by Firm 1: _____ Employed by firm 2 _____

B. Identify by name and firm the individual who will be responsible for Joint Venture hiring: ____

_____

X. Additional Information. Please state any material facts and additional information pertinent to the control and structure of this Joint Venture.

_____

_____

XI. AFFIDAVIT OF JOINT VENTURE PARTIES. The undersigned affirm that the foregoing statements and attached documents are correct and include all material information necessary to identify and explain the terms and operations of our Joint Venture and the intended participation of each firm in the undertaking. Further, the undersigned covenant and agree to provide to MassDOT current, complete and accurate information regarding actual Joint Venture work, payments, and any proposed changes to any provisions of the Joint Venture, or the nature, character of each party to the Joint Venture. We understand that any material misrepresentation will be grounds for terminating any Contract awarded and for initiating action under Federal or State laws concerning false statements.

Firm 1	Firm 2
Signature Duly Authorized	Signature Duly Authorized
Printed Name and Title	Printed Name and Title
Date	Date

*** END OF DOCUMENT ***