# TOWN OF PLYMOUTH PROCUREMENT DIVISION 26 COURT STREET PLYMOUTH, MA 02360



# **INVITATION FOR BID 22532**

# TOWN WHARF REPAIRS AND EXTENSION

Issued: Thursday, December 4, 2025

Pre-Bid Meeting: Wednesday, December 17, 2025, at 11:00 a.m.

Bid Opening: Wednesday, January 7, 2026, at 10:00 a.m.

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**BID FORMS** 

# TOWN OF PLYMOUTH 26 Court Street Plymouth, MA 02360

December 4, 2025

#### **INVITATION FOR BIDS 22532**

#### A. INVITATION

The Town of Plymouth seeks bids for the furnishing of all labor, equipment, materials, tools, apparatus and all other incidental work required to repair the Town Wharf and install the Town Wharf extension.

Bids are to be submitted in the Procurement Office by **10:00 a.m. on Wednesday, January 7, 2026**, at which time they will be publicly opened and read. Postmarks will not be considered. All bids must be sealed and made upon forms furnished by the Procurement Division. Bids submitted on any other form will not be accepted as valid bids. Envelopes should be clearly marked **Bid 22532, Town Wharf Repairs & Extension**.

All bids are subject to the provisions of M.G.L. c.30 §39M, and these Bid and Contract Documents.

#### **Contract Period:**

This agreement shall be for the period as specified in the Notice to Proceed, and is to be completed by November 1, 2026.

#### **Liquidated Damages:**

Liquidated Damages of \$500.00 will be charged for each day the work has not been completed after the agreed upon completion date.

#### **Rule for Award:**

The Contract will be awarded to the responsive, responsible, and eligible bidder offering the lowest bid price.

#### **Bid Surety:**

A Bid Deposit is required in the amount of five percent (5%) of the approximate total value of the bid based upon the bid price, and if applicable, the estimated quantities as shown on the Bid Form price schedule. Such Bid Deposit shall be in the form of a Cashier's, Certified or Bank Treasurer's check payable to the Town of Plymouth, or a bid bond from a licensed surety company authorized to do business in the Commonwealth of Massachusetts. The Bid Deposit of the successful bidder will be returned upon execution of the Contract. All others will be returned upon Contract award.

MassDOT Prequalification: N/A

**DCAMM Certification: N/A** 

# **Prevailing Wage Rates:**

This bid is subject to \$39 of c.30, and \$26 to 27G and \$29 of c.149 of the Massachusetts General Laws as amended, including Prevailing Wage Rates as determined by the Commissioner of Labor and Industries that must be paid on this Contract. A copy of said rates is contained herein. Each Contractor and/or Subcontractor shall preserve its payroll records for a period of three (3) years from the date of completion of this Contract. In addition, each Contractor/Subcontractor must submit a copy of their weekly payroll records to the Procurement Division on a weekly basis.

#### **Labor and Materials Bond:**

This bid is subject to \$39 of c.30, and \$26 to 27G and \$29 of c.149 of the Massachusetts General Laws as amended, including the requirement for a Payment Bond. The successful bidder must furnish a bond in an amount one hundred percent (100%) of the total Contract Price for payment by the Contractor and/or Subcontractors for labor performed or furnished and material used or employed therein, payable to the Town of Plymouth, issued by a responsible surety company authorized to do business in the Commonwealth of Massachusetts, the premiums of which are to be paid by the Contractor and included in the bid price.

#### **Performance Bond:**

This bid is subject to Section 39M of Chapter 30 of the Massachusetts General Laws as amended, including the requirement for a Performance Bond. The successful bidder must furnish a one hundred percent (100%) Construction Payment Bond, payable to the Town of Plymouth, issued by a responsible surety company doing business in the Commonwealth of Massachusetts.

#### **B. GENERAL CONDITIONS**

1. Proposals must be submitted to the address as follows:

Town Hall Procurement Office 26 Court Street Plymouth, MA 02360

Postmarks will not be considered. It is the sole responsibility of the bidder to ensure that their proposal is delivered directly to the Procurement Office before the designated time and date.

All bids shall be based on the quantities set forth in the Invitation for Bids. These quantities shall be used as a basis for comparison of bid proposals. The quantities are based on the Town's estimates of the work to be performed during the term of this Contract; the Town does not expressly or by implication agree that the actual amount of work will correspond herewith, and the Town reserves the right to increase or decrease the amount of any class or portion of the work as it may deem necessary, without change of price per unit.

- 3. The Town of Plymouth reserves the right to reject all bids, to waive technicalities, to advertise for new bids and to split awards as may be deemed to be in the best interest of the Town. The contract(s) will be awarded by the Town within thirty (30) business days after opening bids. The Town reserves the right to require samples of materials for inspection and testing.
- 4. All words, signatures and figures submitted on the bid shall be in ink. Bids which are conditional, obscure or which contain additions not called for, erasures, alterations or irregularities, or any prices which contain abnormally high or low prices for any item, may be rejected as informal. More than one (1) proposal from the same bidder will not be considered.
- 5. The successful bidder shall comply with all applicable Federal, State and local laws and regulations.
- 6. The Town's policy on awarding Contract(s) to bidders with identical prices states: "When bids for goods and services are requested and received by the Town, the award is made to the lowest responsive and responsible bidder. If two (2) or more bid prices are identical and all tied bidders are responsive and responsible, and award will be made according to the first of these three (3) conditions to apply:
  - a. Past service to the Town; if one of the tied bidders has provided this or similar services in a satisfactory manner in the past, it will be awarded to that bidder;
  - b. A bidder based in Plymouth;
  - c. Random selection flip of a coin or drawing if more than two (2) are tied."
- 7. Purchases made by the Town are exempt from taxes and bid prices must exclude any taxes. Tax exemption certificates will be furnished upon request.
- 8. Verbal orders are not binding on the Town and deliveries made or work done without formal Purchase Order or Contract are at the risk of the Contractor and may result in an unenforceable claim.
- 9. An item equal to that named or described in the Specification of the Contract may be furnished by the Contractor and the naming of any commercial name, trademark, item or manufacturer not mentioned by name or as limiting competition, but shall establish a standard of equality only. An item shall be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the Specifications. The name and identification of all materials other than the one specifically named shall be submitted to the Town for approval, prior to purchase, use or fabrication of such items. Subject to the provisions of \$39J of c.30 of the Massachusetts General Laws, approval shall be at the sole discretion of the Town, shall be in writing to be effective, and the decision of the Town shall

be final. The Town may require tests of all materials so submitted to establish quality standards at the Contractor's expense. All directions, specifications and recommendations by manufacturers for the installation, handling, storing, adjustment and operation of their equipment shall be complied with; responsibility for proper performance shall continue to rest with the Contractor.

For the use of material other than the one specified, the Contractor shall assume the cost of and responsibility for satisfactorily accomplishing all changes in the work as shown. If no manufacturer is named, the Contractor shall submit the product for intended use for approval of the Town.

Except as otherwise provided for by the provisions of \$39J of c.30 of the Massachusetts General Laws, the Contractor shall not have any right of appeal from the decision of the Town condemning any materials furnished if the Contractor fails to obtain the approval for substitution under this clause. If any substitution is more costly, the Contractor shall pay for such costs.

- 10. The Contractor shall replace, repair or make good, without costs to the Town, defects or faults arising within one (1) year after date of acceptance or articles furnished hereunder (acceptance not to be unreasonably delayed) resulting from imperfect or defective work done or materials furnished by the Contractor.
- 11. The Contractor shall not discriminate against any person on the grounds of race, color, marital status, physical disability, age, sex, sexual orientation, religion, ancestry, or national origin in any manner prohibited by the laws of the United States, the Commonwealth, or the Town of Plymouth.

#### C. CONTRACT AWARD

Award of this bid will be made to the bidder who offers the lowest price(s) and who is deemed responsive, responsible and eligible. Determination of responsiveness, responsibility and eligibility shall be based solely on the following criteria:

- 1. Bidders will be deemed responsive if they complete all required forms as included in the attached Bid Forms package to the satisfaction of the Town.
- 2. Bidders will be deemed responsible and eligible if:
  - a. Its bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work;
  - b. It shall certify that they are able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work;
  - c. It shall also certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish

- documentation of successful completion of said course with the first certified payroll report for each employee;
- d. Where the provisions of §8B of c.81 apply, the bidder shall have been determined to be qualified thereunder:
- e. If the bidder provides at least ten (10) references as evidence that it has a minimum of ten (10) years' experience performing work of a similar scope and scale. Evidence shall include Owner's name, Owner's contact information, name of project, description of project, year project completed, and the project engineers contact information.

# D. INSURANCE REQUIREMENTS

- 1. The Contractor shall carry and continuously maintain until completion of the Contract, insurance as specified below and in such form as shall protect them performing work covered by this Contract, or the Town of Plymouth and its employees, agents and officials, from all claims and liability for damages of bodily injury, including accidental death, and for property damage which may arise from operations under this Contract. The Contractor covenants and agrees to hold the Town and its employees, agents and officials harmless from loss or damage due to claims for personal injury and/or property damage arising from, or in connection with, operations under this Contract.
- 2. Except as otherwise stated, the amounts of such insurance shall be for each policy, not less than:
  - a. **General Liability** of at least one million dollars (\$1,000,000.00) Bodily Injury and Property Damage Liability, Combined Single Limit with a Three Million Dollars (\$3,000,000.00) Annual Aggregate Limit. **The Town of Plymouth shall be named as "Additional Insured".**
  - b. Automobile Liability of at least one million dollars (\$1,000,000.00) Bodily Injury and Property Damage per accident. The Town of Plymouth shall be named as "Additional Insured".
  - c. Worker's Compensation Insurance as required by law. Include Employee Liability Part B.
  - d. <u>Property Coverage</u> for materials and supplies being transported by the Contractor as the Town's Property Contract provides coverage for personal property within 1,000 feet of the premises.
  - e. <u>Umbrella Liability</u> of at least Five Million Dollars (\$5,000,000.00) per occurrence, Five Million Dollars (\$5,000,000.00) aggregate. **The Town of Plymouth shall be named as "Additional Insured".**
- 3. All policies shall be so written that the Town will be notified of cancellation or restrictive amendment at least thirty (30) days prior to the effective date of such cancellation or amendment. A certificate from the Contractor's insurance carrier showing at least the

coverage and limits of liability specified above and expiration date shall be filed with the Town before operations are begun.

- 4. Such certificates shall not merely name the type of policy provided, but shall specifically refer to this Contract and shall state that such insurance is required by the Contract. The Contractor shall make no claims against the Town of Plymouth or its officers for any injury to any of their officers or employees or for damage to their trucks or equipment arising out of work contemplated by this Contract.
- 5. The Contractor shall, to the maximum extent permitted by law, indemnify and save harmless the Town of Plymouth, its officers, agents and employees from and against any and all damages, liabilities, actions, suits, proceedings, claims demands, losses, costs and expenses (including reasonable attorney's fees) that may arise out of or in connection with the work being performed or to be performed by the Contractor, its employees, agents, subcontractors or materialmen. The existence of insurance shall in no way limit the scope of this indemnification. The Contractor further agrees to reimburse the Town of Plymouth for damage to its property caused by the Contractor, its employees, agents, subcontractors or materialmen, including damages caused by use of faulty, defective or unsuitable material or equipment, unless the damage is caused by the Town of Plymouth's gross negligence or willful misconduct.

#### **E. SAFETY & HEALTH REGULATIONS**

The successful bidder shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PS-91-596) and under §107 of the Contract Work Hours and Safety Standards Act (PL-91-54).

The successful bidder shall have a competent person or persons, as required under the Occupational Safety and Health Act, on the site to inspect the work and to supervise the conformance of the work within the regulations of the Act.

This project is subject to the Safety and Health Regulations of the United States Department of Labor and Industries, Division of Industrial Safety "Rules and Regulations for the Prevention of Accidents in Construction Operations (Industrial Bulletin No. 12)." Contractors shall know the requirements of these regulations.

The Contractor shall provide the following safety documents upon Contract award:

- 1. The Safety Acknowledgement Agreement Form (which will be issued with the Contract), and
- 2. The Company's Health and Safety Manual.

For projects over one million dollars (\$1,000,000.00) the awarded Contractor shall submit a job specific Health and Safety Plan (HASP) to the Town's Safety Compliance Officer for review, before commencing any portion of the work on site. The plan shall include the analysis of the significant hazards to life, limb, and property inherent in the performance of work, and plan for controlling these hazards.

The Contractor shall inform the permitting authority within **twenty-four (24) hours** if any accidents/incidents resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies or equipment that arises in connection with the work.

In any emergency affecting the safety of persons or property, the Contractor shall immediately act in the exercise of reasonable judgement to prevent threatened damage, injury or loss. The Contractor shall immediately notify the Town of such emergency.

Without limiting the Contractor's responsibilities described in the Bid Documents, the Contractor shall take all reasonable precautions for the safety of, and the prevention of, injury or damage to all agents, employees and contractors on the project, and all other persons who may be affected thereby including the general public.

#### F. WITHDRAWAL OF BIDS

Except as hereinafter expressed provided, once a bid is submitted and received by the Town, the bidder agrees that they may not and will not withdraw it within thirty (30) calendar days after the actual date of the opening of bids.

Upon proper written request and identification, bids may be withdrawn as follows:

- 1. At any time prior to the designated time for opening bids;
- 2. Provided the bid has not been accepted by the Town, at any time subsequent to thirty (30) days following the actual date of bid opening.

Unless a bid is withdrawn as provided above, the bidder agrees that it shall be deemed open for acceptance until a Contract has been executed by both sides or until the Town notifies the bidder in writing that their bid was rejected or that the Town does not intend to accept it or returns its Bid Surety. Notice of acceptance of a bid shall not constitute rejection of any other bid.

### **G. BID STATUS INFORMATION**

If you received Bid Documents directly from the Town and provided the Town with an email address for delivery of **addenda**, the Town intends to deliver a copy of each addendum to you at such email address, but the Town shall not be responsible for any failure of a bidder to receive any addenda. Notwithstanding the foregoing, bidders are solely responsible to check for and confirm their receipt of any addenda in advance of the bid deadline. All addenda will be posted on the Town's website at <a href="https://www.plymouth-ma.gov/bids.aspx">www.plymouth-ma.gov/bids.aspx</a>.

**Bid Results** will be available on the Town's website at <a href="https://www.plymouth-ma.gov/bids.aspx">www.plymouth-ma.gov/bids.aspx</a>. Bid results will not be provided over the phone.

Notification of award of Contract will be mailed to all bidders.

# H. BID QUESTIONS

Questions regarding the project or specifications must be submitted in writing and emailed to <a href="mailto:procurement@plymouth-ma.gov">procurement@plymouth-ma.gov</a> by **December 31, 2025**. At the discretion of the Town, questions will be answered by written addenda. Bidders may not rely upon oral responses to questions, and may rely solely upon written addenda, if any.

#### **SPECIAL CONDITIONS**

**EQUIPMENT:** The Contractor shall furnish equipment which will be effective, appropriate and large enough to secure a satisfactory quality of work and a rate of progress which will ensure the completion of the work within the time stipulated in the Bid Documents. If at any time such equipment appears to the Town to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, the Town may order the Contractor to increase the efficiency, change the character or increase the equipment, and the Contractor shall conform to such order. Failure of the Town to give such order shall in no way relieve the Contractor of their obligations to secure the quality of the work and rate of progress required.

**WORK HOURS:** Normal work hours will mean up to five (5) 8-hour days, Monday through Friday. In order to work hours not within this span for the Contractor's benefit, they shall request a written authorization to be approved by the Town. For work outside the normal day, work on Saturdays, Sundays or legal holidays, if any be performed, the Contractor will receive no extra payment, but compensation shall be considered as having been included in the prices as stipulated for the appropriate items of work as listed in the bid.

**APPROVAL OF MATERIALS:** Only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by the Contractor shall be subject to the inspection and approval of the Town. No materials shall be delivered to the worksite without prior approval of the Town.

The Contractor shall submit data and samples sufficiently early to permit consideration and approval before materials are necessary for incorporation in the work. Any delay of approval resulting from the Contractor's failure to submit samples or data promptly shall not be used as a basis of a claim against the Town.

SUBSTITUTES OF APPROVED "OR EQUAL" ITEMS: Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other suppliers may be accepted by the Town if sufficient information is submitted by the Contractor to allow the Town to determine that the material or equipment proposed is equivalent or equal to that named. Requests for review of substitute items of material and equipment will not be accepted by the Town from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or requirement, the Contractor shall make a written application to the Town for acceptance thereof certifying that the proposed substitute will perform adequately similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice the Contractor's achievement of substantial completion on time, whether or not acceptance of the substitute for us in the work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the Town for work on the project) to adapt the design to the proposed substitute and whether or not incorporation of use of the substitute in connection with the work is subject to payment of any license fee or royalty.

All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also

result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Town in evaluating the proposed substitute. The Town may require the Contractor to furnish, at the Contractor's expense, additional data about the proposed substitute.

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, the Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the Town if the Contractor submits sufficient information to allow the Town to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by the Town will be similar to that stated previously.

The town will be allowed a reasonable time within which to evaluate each proposed substitute. The Town will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without the Town's prior written acceptance which will be evidenced by either a change order or an approved Shop Drawing. The Town may require the Contractor to furnish, at the Contractor's expense, a special performance guarantee or other surety with respect to any substitute. The Town will record time required by the Town and Town's consultants in evaluating substitutions proposed by the Contractor, and in making changes to the Contract Documents occasioned thereby. Whether or not the Town accepts a proposed substitute, the Contractor shall reimburse the Town for the charges of Town's consultants for evaluating each proposed substitute.

**TEMPORARY UTILITIES:** The Contractor shall make all arrangements for and furnish at their expense all water, electricity, telephone or other utilities required by them for construction purposes.

**LOCATION OF ALL UTILITIES:** The location of the existing utilities must be established and verified by the Contractor. The Contractor shall make arrangements with the appropriate utility companies to have all existing utilities marked along the course of this work by such means as necessary. The Contractor shall preserve such marked locations until the work has progressed to the point where the encountered utility is fully exposed or protected as required. It shall be the Contractor's responsibility to notify the proper authorities or utility before interfering therewith.

**SAFETY CONTROL:** The Contractor shall provide and maintain all required safety equipment such as barricades, detour barriers and signs, lights, walkways, fences, and fire prevention equipment. If at any time before the commencement or during the progress of work, or any part of it, such methods and procedures as used appear to the Town as unsafe, insufficient or improper, the Town may order the Contractor to increase their safety of efficiency or to improve their character, and the Contractor shall conform to such orders. Failure of the Town to give such an order to increase such safety, efficiency, adequacy or any improvements shall not release the Contractor from their obligation to secure the safe conduct and quality of work specified. Notwithstanding the foregoing, nothing herein obligates the Town to perform any review or inspection of any of the Contractor's methods or procedures.

OCCUPATIONAL SAFETY AND HEALTH ACT: The Contractor's particular attention is called to the rules and regulations included in Public Law 91-596, known as the "Occupational Safety and Health Act of 1970" (OSHA).

**MAINTENANCE OF TRAFFIC:** The Contractor shall be responsible for the maintenance of traffic with the maximum of safety and practicable convenience to such traffic during the life of the contract whether or not work thereon has been suspended temporarily. The work shall be carried on in such a manner as to provide safe passage at all times for public travel and with least obstruction to traffic.

The convenience of the general public and of the residents along and adjacent to the work shall be provided for in an adequate and satisfactory manner.

Portable barrier fences with appropriate signs shall be used for safety control in establishing traffic patterns (detours, etc.). These portable barrier fences shall meet the approval of the Harbormaster or their designee, provided that any such approval or lack thereof shall not relieve the Contractor of their obligation to use appropriate barrier fences.

Roadways, driveways and foot paths closed to traffic shall be protected by suitable barricades and warning signs, and the Contractor shall provide and maintain adequate lights and illumination. Therefore, they shall be held responsible for all damage to the work due to any failure of signs and barricades to protect the work properly from traffic, pedestrians, animals or other causes.

**POLICE DETAIL:** The Contractor shall coordinate with the Plymouth Police Department the number of traffic police required in either the appropriate traffic management plan (TMP) template (see MassDOT's website at <a href="https://www.mass.gov/lists/construction-details">www.mass.gov/lists/construction-details</a>) or deemed necessary for the direction and control of traffic within the site.

The Contractor shall submit the requested and signed police detail schedule as called in and arranged directly with the Police Department on a weekly basis. Police details will be paid directly by the Contractor. The Contractor shall be responsible for scheduling and canceling police details if not needed. It is the Contractor's responsibility to cancel a detail(s) at a minimum of four (4) hours in advance of the start of the shift if conditions so warrant. Police details not cancelled in time shall be paid for by the Contractor.

**RESTORATION (WORK IN IMPROVED PROPERTY AREAS):** The Contractor, at their own expense, shall care for, replace and restore to good condition, satisfactory to the Town, and public or private property (i.e. shrubs, hedges, trees, public or private ways, sewer drains, water or other pipes, catch basins, wires, buildings, fences, posts, poles, mailboxes, stone walls or other structures) negligently damaged by their work, equipment, or employees, to a condition at least equal to that existing immediately prior to the beginning of operations.

The Contractor shall also restore to original condition, or better, any lawn or other planted area interfered with, including fertilizing, loaming, and seeding as required, once again at the Contractor's expense.

Suitable materials, equipment and methods shall be used for such restoration.

**BOUNDS AND PROPERTY MARKERS:** All bounds and property markers disturbed in the course of the work shall be replaced by the Contractor at their expense.

The Contractor shall employ a registered land surveyor to reset all bounds and property markers.

**TELEPHONE NUMBERS:** The telephone numbers of the following Town of Plymouth Departments are:

POLICE (508) 830-4220 (business)

FIRE (508) 830-4213 (business)

HARBORMASTER (508) 830-4182

HIGHWAY (508) 830-4162, ext. 12101

WATER (508) 830-4162, ext. 12136

SEWER (508) 830-4159, ext. 14212

PUBLIC WORKS (508) 830-4162, ext. 12105

Town Office Building Hours: Monday, Wednesday, Thursday 7:30 a.m. to 4:00 p.m.

Tuesday 7:30 a.m. to 6:30 p.m. Friday 7:30 a.m. to 12:00 p.m.

**LEGAL REQUIREMENTS:** The Contractor shall keep themselves fully informed of, and comply with, all laws, ordinances and regulations of the Federal, State and municipal governments which may be in force during the life of the contract, and in any manner affecting their employees or the conduct of work of materials used on said work.

**PERSONAL SUPERVISION BY CONTRACTOR:** The Contractor or their duly authorized and approved representative shall give personal attention to the fulfillment of the contract. The Contractor shall have on the worksite, at all times, a competent representative authorized to receive and execute any order of direction of the Town.

The representative should also accept any notices given to the Contractor under the provisions of the contract.

**CLEANUP:** During the course of the work, the Contractor shall keep the site of their operations in as clean and neat a condition as possible. They shall dispose of all residue resulting from the construction work on a daily basis and, at the conclusion of work, they shall remove and haul away structures and other refuse remaining from the construction operations, and shall leave the entire site of the work in a neat and orderly condition.

#### SAMPLE AGREEMENT & ASSOCIATED DOCUMENTS

THIS AGREEMENT, made this	day of	, 2026, b	y and between the TOWN	
OF PLYMOUTH, with an office at	t 26 Court Stre	t, Plymouth, Massach	usetts, 02360, hereinafter	
called the "Owner", and	, W	th an office at		
, hereinafter called the "Contractor".				
WITNESSETH, that the Owner and follows:	d the Contracto	, for the consideration I	nereafter named, agree as	
Article 1. SCOPE OF WORK: The Documents for Town Wharf Repai		•	•	
Article 2. TIME OF COMPLETION: The Contractor shall commence work under this Contract on the date specified in the written "Notice to Proceed" from the Owner, and shall bring the work to full completion on or before November 1, 2026.				
Article 3. CONTRACT SUM: The O of the work, subject to additio	ons and deduc		<u>-</u>	
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Article 4. CONTRACT DOCUMENTS: The following, together with this Agreement, form the Contract and all are as fully a part of the Contract as if attached to this Agreement or repeated herein; the advertisements, Bid Documents, Contract Forms, Specifications, Drawings, Addenda and Change Orders issued after execution of the Contract.

Notwithstanding anything to the contrary in the Contract Documents, in the event of any conflict or inconsistency in and among the provisions of the Contract Documents, the provisions resulting in the greater quantity and better quality of goods and services and greater liability protection for the Town, as reasonably determined by the Town, shall control.

#### "NOTICE TO PROCEED" AND PRE-CONSTRUCTION CONFERENCE:

A written "Notice to Proceed" shall be issued to the Contractor after receipt of all required documents. No work shall be performed by the Contractor until they have received the "Notice to Proceed" from the Town.

Prior to start of the work, the Contractor, all subcontractors, the project manager, and the Owner shall attend a Pre-Construction Conference. The Conference will serve to acquaint the participants with the general plan of Contract administration; and requirements under which the construction operation is to proceed. The date, time and place of the Conference will be furnished to the Contractor by the project manager.

#### **GENERAL CONDITIONS**

- 1. Funding Source: This project is funded through a Town of Plymouth appropriation.
- 2. <u>Contract Plans and Specifications</u>: All plans, Specification and Addenda, hereinafter enumerated or referenced in this Contract, shall form part of this Contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein set fully forth. The Table of Contents, titles, headings, running headlines and marginal notes contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions of which they refer.
- 3. Additional Instructions and Detail Drawings: The Contractor will be furnished additional instructions and detail drawings as necessary to carry out the work included in the Contract. The additional drawings and instructions thus supplied to the Contractor will coordinate with the Contract Documents and will be so prepared that they can be reasonably interpreted as part thereof. The Contractor and the Harbormaster will prepare jointly: (a) a schedule, fixing the dates at which special detail drawings will be required, such drawings, if any, to be furnished by the Harbormaster in accordance with said schedule, and (b) a schedule fixing the respective dates for the submission of Shop Drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment, and the completion of the various parts of the work; each such schedule to be subject to change from time to time in accordance with the progress of the work.
- 4. Shop or Setting Drawings: The Contractor shall submit promptly to the Harbormaster two (2) copies of each Shop or Setting Drawing prepared in accordance with the schedule predetermined as aforesaid. After examination of such drawings by the Harbormaster or their designee and the return thereof, the Contractor shall make such corrections to the drawings as have been indicated and shall furnish the Harbormaster or their designee with two (2) corrected copies. If requested by the Harbormaster or their designee, the Contractor must furnish additional copies. Regardless of corrections made in or approval given to such drawings by the Harbormaster, the Contractor will nevertheless be responsible for the accuracy of such drawings and for their conformity to the plans and specifications, unless they notify the Harbormaster in writing of any deviations at the time he furnishes such drawings.

#### 5. Materials, Services and Facilities:

- a. It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature and all other services and facilities of every nature whatsoever necessary to execute, complete and deliver the work within the specified time.
- b. Any work necessary to be performed after regular working hours, on Sunday or legal holidays, shall be performed without additional expense to the Owner.
- 6. <u>Contractor's Title to Materials</u>: No materials or supplies for the work shall be purchased by the Contractor or by any subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor

- warrants that they have good title to all materials and supplies used by them in the work, free from all liens, claims or encumbrances.
- 7. <u>Title to Work:</u> The title to all work completed and in the course of construction and of all material on account of which any payment has been made shall be in the Owner's name.
- 8. <u>Inspection and Testing of Materials:</u>
  - a. All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The Owner will pay for all laboratory or inspection service direct, and not as part of the Contract.
  - b. Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with Specifications and suitability for uses intended.
- 9. Express Warranty: The Contractor guarantees to the Owner that all materials incorporated into the work will be new unless otherwise specified or agreed. The Contractor also guarantees that all work will be done in a workmanlike manner, free of defects, and in conformance with any Specifications mentioned in this Contract.
- 10. Maintenance and Guarantee: The Contractor hereby guarantees that the entire work constructed by them under the Contract will meet fully all requirements thereof as to quality of workmanship and of materials furnished by them. The Contractor hereby agrees to make, at their own expense, any repairs or replacements made necessary by defects in materials or workmanship supplied to them that become evident within one (1) year after the date of the final payment, and to restore to full compliance with the requirements set forth herein for any part of the work constructed hereunder, which during said one (1) year period is found to be deficient with the respect to any provisions of the Specifications. The Contractor also agrees to hold the Owner harmless from claims of any kin arising from damage due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written orders for the same from the Owner. If the Contractor fails to make the repairs and replacements promptly, the Owner may do the work, and the Contractor shall be liable to the Owner for the cost thereof.
- 11. "Or Equal" Clause: Whenever a material, article or piece of equipment is identified on the Plans or in the Specifications by reference to manufacturer's or vendor's trade names, catalogue numbers, etc., it is intended merely to establish a standard; and any materials, articles or equipment of other manufacturers and vendors will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article or equipment so proposed is, in the opinion of the Harbormaster, of equal substance and function. It shall not be purchased or installed by the Contractor without the Harbormaster's written approval.
- 12. <u>Surveys, Permits and Regulations:</u> The Town will provide a baseline survey. The Contractor shall be responsible for all additional surveys/layouts necessary for the execution of the work.

The Contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of the Contract.

The Contractor shall comply will all laws, ordinances, rules, orders and regulations relating to performance of the work, the protection of adjacent property and the maintenance of passageways, guard fences or other protective facilities.

13. <u>Contractor's Obligations</u>: The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required by this Contract, within the time herein specified, in accordance with the provisions of this Contract and said Specifications, and in accordance with the Plans and Drawings covered by this Contract, and any and all supplemental Plans and Drawings, and in accordance with the direction of the Harbormaster as given from time to time during the progress of the work. The Contractor shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required.

The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements and limitations of the Contract and Specifications, and shall do, carry on and complete the entire work to the satisfaction of the Harbormaster and the Owner.

- 14. Weather Conditions: In the event of temporary suspension of work, or during inclement weather, or whenever the Harbormaster shall direct, the Contractor will, and will cause their subcontractors to, carefully protect their work and materials against damage or injury from the weather. If, in the opinion of the Harbormaster or their designee, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of their subcontractors to protect their work, such materials shall be removed and replaced at the expense of the Contractor.
- 15. <u>Protection of Work and Property Emergency:</u> The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with the Contract. They shall at all times safely guard and protect their own work, and that of adjacent property from damage. The Contractor shall replace or make good any such damage, loss or injury unless such be caused directly by errors contained in the Contract or by the Owner, or their duly authorized representatives.

In case of an emergency which threatens loss or injury of property, and/or safety of life, the Contractor will be allowed to act, without previous instructions from the Harbormaster, in a diligent manner. The Contractor shall notify the Harbormaster immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Harbormaster.

- 16. <u>Inspection:</u> The authorized representatives and agents of the Owner shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials and other relevant data and records.
- 17. <u>Reports, Records and Data:</u> The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payroll reports, estimates, records and other data as the Owner may request concerning work performed or to be performed under the Contract.

- 18. <u>Superintendence by the Contractor:</u> At the site of the work, the Contractor shall employ a construction superintendent or foreman who shall have full authority to act for the Contractor. It is understood that such representative shall be acceptable to the Harbormaster, or designee, and shall be one who can be continued in that capacity for the particular job involved unless he ceases to be on the Contractor's payroll.
- 19. <u>Changes in Work:</u> No changes in the work covered by the approved Contract Documents shall be made without having prior written approval of the Owner. Charges or credits for the work covered by the approved change shall be determined by one (1) or a combination of the following methods:
  - a. Unit bid prices previously approved
  - b. An agreed lump sum
  - c. The actual cost of:
    - i. Labor, including foremen
    - ii. Materials entering permanently into the work
    - iii. The ownership of rental cost of construction plant and equipment during the time of use on extra work
    - iv. Power and consumable supplies for the operation of power equipment
    - v. Insurance
    - vi. Wages to be paid.

To the cost under (c.) there shall be added a fixed fee to be agreed upon, but not to exceed fifteen percent (15%) of the actual cost of work. The fee shall be compensation to cover the cost of supervision, overhead, bond, profit and any other general expenses.

20. <u>Time for Completion and Liquidated Damages:</u> It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning and the time for completion of the work to be done hereunder are ESSENTIAL CONDITIONS of the Contract; and it is further mutually understood and agreed that the work embraced in this Contract shall be commenced on a date to be specified in the "Notice to Proceed".

The Contractor agrees that said work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

If the said Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any extension thereof granted by the Owner, then the Contractor does hereby agree, as a partial consideration for the awarding of this Contract, to pay the Owner the amount specified in the Contract, not as a penalty but as liquidated damages for such Breach of Contract as hereinafter set forth, for each and every calendar day the Contractor shall be in default after the time stipulated in the Contract for completing the work.

The said amount of liquidated damages is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining

the actual damages the Owner would sustain in such event and said amount shall be retained from time to time by the Owner from current periodic estimates.

It is further agreed that time is of the essence of each and every portion of this Contract and of any specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract as additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this Contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the Owner determines that the Contractor is without fault and the Contractor's reasons for the time extensions are acceptable to the Owner; provided further, that the Contractor shall not be charged with liquidated damages or an excess cost when the delay in completion of the work is due to:

- a. Any preference, priority or allocation order duly issued by the government
- b. Unforeseeable cause beyond the control and without fault of negligence of the Contractor, including, but not restricted to, acts of God or the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and severe weather
- c. Any delays of subcontractors or suppliers occasioned by any of the causes specified in subsections (a.) and (b.) of this article.

Provided further, that the Contractor shall within ten (10) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the Contract, notify the Owner, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter. The amount of liquidated damages for this project shall be <u>Five Hundred Dollars</u> (\$500.00) per consecutive calendar day.

- 21. Correction of Work: All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be at all times and places subject to the inspection of the Harbormaster or their designee, who shall be the final judge of the quality and suitability of the work, materials, processes of manufacture and methods of construction for the purposes for which they are used. Should they fail to meet the Harbormaster's approval, they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Contractor at their own expense. Rejected materials shall immediately be removed from the site. If, in the opinion of the Harbormaster, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract Documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount as in the judgement of the Harbormaster shall be equitable.
- 22. <u>Subsurface Conditions Found Different:</u> Should the Contractor encounter subsurface and/or latent conditions in the site materially differing from those shown on the Plan or indicated in the Specifications, they shall immediately give notice to the Harbormaster of such conditions before they are disturbed. The Harbormaster will thereupon promptly investigate the conditions, and if they find that they materially differ from those shown on the Plans or indicated in the Specifications, will at once make such changes in the Plans and/or Specification as they may

find necessary, any increase or decrease of cost resulting from such changes to be adjusted in the manner provided in Paragraph 19 of the General Conditions.

- 23. Right of the Owner to Terminate Contract: The Owner may terminate this Contract by providing the Contractor and the Surety with ten (10) days' written notice specifying the reasons for termination as outlined below:
  - a. Violation of any of the provisions of this Contract by the Contractor or any of their subcontractors
  - b. A determination by the Owner that the Contractor has engaged in fraud, waste, mismanagement, misuse of funds, or criminal activity with any funds provided by this Contract.
  - c. Failure of the Contractor, for any reason, to fulfill in a timely and proper manner their obligations under this Contract, including compliance with applicable Federal, State and/or local law or regulations, and such procedures or guidelines as may be established.

In the event if any such termination, the Surety shall have the right to take over and perform the Contract; provided, however, that if the Surety does not commence performance within ten (10) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion at the expense of the Contractor, and the Contractor and their Surety shall be liable to the Owner for any excess cost occasioned by the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances and plants as may be on the site of the work and necessary therefore.

If the Owner determines that a continuation of work on the project would endanger the life, health or safety of those working or living at or near the project site, or that immediate action is necessary to protect public funds and/or property, the Owner may suspend work or terminate this agreement by providing notice to the Contractor in the form of a telegram, mailgram, hand-carried letter, or other appropriate written means.

In addition, notwithstanding anything to the contrary in the Contract, the Owner may also terminate this Contract for its conveniences, including due to the lack of sufficient funds to complete the work. In such event, the Owner shall provide written notice of termination to the Contractor, and the Contractor shall thereupon cease all work other than work that is required to make the work and surrounding property safe, and the Owner shall pay the Contractor for all work performed in accordance with the terms of the Contract up to the date of the Contract, provided the Contractor shall not be entitled to any termination (or similar) damages or other costs and expenses that may be associated with a termination for convenience.

#### 24. Payments to the Contractor:

a. Not later than the tenth (10<sup>th</sup>) day of each calendar month, the Owner shall make a progress payment to the Contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under this Contract, but to insure the proper performance of the Contract, the Owner shall retain five percent (5%) of the amount of each estimate until final completion and acceptance of all work covered by this Contract; provided that the Contractor shall submit their estimate not later than the first (1<sup>st</sup>) day of the

- month; provided further that on completion and acceptance of each separate building, public work or other division of the Contract, on which the price is stated separately in the Contract, payment may be made in full, including retained percentages thereon, less authorized deductions.
- b. In preparing estimates, the material delivered on the site and preparatory work done may be taken into consideration.
- 25. Indemnification: The Contractor shall comply with the requirements of all applicable laws, rules and regulations in connection with the cervices of the Contractor, and shall exonerate, indemnify and hold harmless the Owner's officers, agents, and all employees from and against them, and local taxes or contributions imposed or required under the Social Security, Worker's Compensation, and Income Tax laws. Further, the Contractor shall exonerate, indemnify and hold harmless the Owner with respect to any damages, expenses or claims arising from or in connection with any of the work performed or to be performed under this Contract. This shall not be construed as a limitation of the Contractor's liability under the Contract or as otherwise provided by law.
- 26. Acceptance of Final Payment Constitutes Release: The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and liability to the Contractor. No payment, however, final or otherwise, shall operate to release the Contractor or their Sureties from any obligations under the Contract or the performance and payment bond.
- 27. <u>Insurance</u>: The Contractor shall not commence work under this Contract until they have obtained all the insurance required in the Invitation to Bid and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on a subcontract until the insurance required of the subcontractor has been so obtained and approved.
- 28. <u>Flood Disaster Protection</u>: The Owner of land subject to acquisition or improvement under this Contract, and their successors or assigns, are hereby obligated to obtain and maintain, during ownership of the land which is the subject of this Contract, such flood insurance as required with respect to financial assistance of acquisition or construction purposes under §102 (a) of the Flood Disaster Protection Act of 1973. This obligation is binding notwithstanding the fact that construction on the land, which is the subject of this Contract, is not itself funded out of assistance provided under the Housing and Community Development Act of 1974.
- 29. <u>Contract Security:</u> The Contractor shall furnish a payment bond in an amount not less than one hundred percent (100%) of the Contract Price or in a penal sum not less than that prescribed by State or local law, as security for the payment of all persons performing labor on the project under this Contract and furnishing materials in connection with the Contract.
- 30. Assignments: The Contractor shall not assign or subcontract the whole or any part of this Contract or any monies due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior claims of all persons, firms and corporations of services rendered or materials supplied for the performance of the work called for in this Contract.

31. Authority of the Harbormaster: The Harbormaster or their designee shall give all orders and directions contemplated under this Contract and Specifications relative to the execution of the work. The Harbormaster or their designee shall determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under the Contract and shall decide all questions which may arise in relation to said work and the construction thereof. The Harbormaster's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said Contract and Specifications, the determination or decision of the Harbormaster shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this Contract affected in any manner or to any extent by such question.

The Harbormaster or their designee shall decide the meaning and intent of any portion of the Specifications and of any Plans or Drawings where the same may be found obscure or be in dispute.

- 32. <u>Notice and Service Thereof:</u> Any notice to any Contractor from the Owner relative to any part of this Contract shall be in writing and considered delivered and the service thereof completed when said notice is posted, by certified or registered mail, to the said Contractor at their last given address, or delivered in person to the said Contractor or their authorized representative on the work.
- 33. <u>Subcontract:</u> The Contractor will insert in any subcontracts the Federal Labor Standards Provisions and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.
- 34. Interest of Member of or Delegate to Congress: No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this Contract or to any benefit what may arise therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.
- 35. Other Prohibited Interest: No official of the Town of Plymouth who is authorized in such capacity and on behalf of the Town to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of this project shall become directly or indirectly interested personally in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer or inspector of or for the Town who is authorized in such capacity and on behalf of the Town to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part thereof, any material supply contract, subcontract, insurance contract or any other contract pertaining to the project.
- 36. <u>Suspension of Work:</u> Notwithstanding anything to the contrary in the Contract and related documents:

Should the work be delayed in any manner, for any reason, and by whomever caused, including but not limited to, due to the lack or delay of funding, and/or should the Owner be prevented or

enjoined from proceeding with work either before or after the start of construction by any reason, including the absence of sufficient funds to complete the work, or as a result of any litigation or any other reason whether within or beyond the control of the Owner, the Contract shall not be entitles to any additional compensation or any other damages on account of any such delays, and shall not make or assert claim for such compensation or damages, whether such claims are titled, claims for delay damages, out of sequence work, acceleration of the work, hindrance, or otherwise; but time for completion of the work will be extended to such reasonable time as the Town may determine will compensate for time lost by such delay with such determination to be set forth in writing, and this shall be the Contractor's sole remedy on account of any delay.

- 37. Access to Records: The Contractor shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Contract and such other records as may be deemed necessary by the Town to assure proper accounting for all project funds. These records will be made available for audit purposes to the Owner or any authorized representative, and will be retained for three (3) years after final MSCP audit.
- 38. <u>Age Discrimination Act of 1975:</u> No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination from receiving Federal Financial Assistance.

The Contractor shall comply with the provisions of the Age Discrimination Act of 1975 (42 USC 6101 et seq.).

The Age Discrimination in Employment Act prohibits arbitrary age discrimination in employment.

39. Non-Discrimination: The Contractor shall adhere to the requirements set forth in Title VI of the Civil Rights Act of 1964 (Public Law 88-352), and the regulation issued pursuant thereto by HUD (24 CFR Part 1); Title VIII of the Civil Rights Act of 1968 (Public Law 90-284), as amended; \$109 of the Housing and Community Development Act of 1974, and the HUD regulations issued pursuant thereto (24 CFR 570.601); Federal Executive Order 11063, as amended by Executive Order 12259 and the HUD regulations issued pursuant thereto (24 CFR 107); Executive Order 11246 and the rules, regulations and relevant orders of the U.S. Secretary of Labor, if applicable; the Age Discrimination Act of 1975 (42 USC 6101 et seq.); \$402 of the Veterans of the Vietnam Era Act; \$504 of the Rehabilitation Act of 1973 (29 USC 794); Massachusetts General Laws c.151B \$1 et seq.; State Executive Order 74 as amended and revised by Executive Orders 116, 143 and 227, and EOCD regulation, procedures or guidelines; Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1979; and EOCD guidelines, procedures, or regulations.

The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, age, handicap, or national origin. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and the employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, age, handicap, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rate of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post in conspicuous

places, available to employees and applicants for employment, notices setting forth the provision of this non-discrimination clause. The Contractor shall state in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, age, handicap, or national origin. The Contractor shall incorporate the foregoing requirements of this paragraph in all contracts for work to be performed in this paragraph in all contracts for work to be performed in accordance with this Contract and will require all of its subcontractors to incorporate such requirements in all subcontracts for program work.

Contracts are subject to Federal Executive Order 11246, as amended, and shall be subject to HUD Equal Employment Opportunity regulation at 24 CFR Part 130 applicable to HUD assisted construction contracts.

The Contractor shall send to each labor union or representative or workers with which they have a collective bargaining agreement or other contract or understanding, a notice advertising the said labor union or worker's representatives of the Contractor's commitment under this subsection and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

In the event of noncompliance by the Contractor with the non-discrimination clauses of this Contract or with any such rules, regulations, or orders of the Secretary of Labor, the Contract may be cancelled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contract or Federally assisted construction contract procedures authorized in Executive Order 11246, or by rules, regulations or orders of the Secretary of Labor, as otherwise provided by law.

The Contractor shall include the provisions set forth herein in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to \$204 of Executive Order 11245, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such actions with respect to any subcontract or purchase order as HUD or EOCD may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

40. Non-Federal Labor-Standards Provisions: The following Non-Federal Labor-Standards Provisions, including the provisions concerning maximum hours of work, minimum rates of pay, and overtime compensation, with respect to the categories and classifications of employees hereinafter mentioned are included in this Contract pursuant to the requirements of applicable State or local laws, but the inclusion of such provisions shall not be construed to relieve the Contractor or subcontractor from the pertinent requirements of any corresponding Federal Labor-Standard Provisions of this Contract. In case the minimum rates of pay set forth below shall be higher than the minimum rates of pay required by or set forth in the Federal Labor Standards Provisions of this Contract for corresponding classifications, the minimum rates of pay for such classifications. The limitations, if any, in these Non-Federal Labor-Standards

Provisions upon the hours per day, per week or per month which employees engaged on the work covered by this Contract may be required or permitted to work thereon shall not be exceeded.

41. Schedule of Salaries and Wages: The minimum wage rates and health and welfare contributions applicable to this Contract as determined by the Commonwealth of Massachusetts Executive Office of Labor and Workforce Development Department of Labor Standards under the provisions of M.G.L. c.149 §26-27H, inclusive as amended are attached hereto and incorporated herein. The greater of Federal or State prevailing wages, when both are applicable, shall be paid under this Contract and reported as required.

#### 42. Massachusetts Labor Provisions:

- a. In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers by the Contractor and subcontractors, preference shall firs be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six (6) months at the commencement of their employment, who are male veterans as defined in M.G.L. c.4 §7 43<sup>rd</sup> Clause, and who are qualified to perform the work to which the employment relates; and secondly to citizens of the Commonwealth generally who have been residents of the Commonwealth for at least six (6) months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, in accordance with M.G.L. c.149 §26.
- b. The minimum rates of wages to be paid mechanics and apprentices, chauffeurs, teamsters and laborers shall be set for in the schedule of rates of wages determined by the Massachusetts Department of Labor Standards.
- c. In accordance with M.G.L. c.149 §34A, the Contractor shall, before commencing performance of the Contract, provide insurance for the payment of compensation and the furnishing of other benefits under c.152 to all persons to be employed under the Contract, and the Contractor shall continue such insurance in full force and effect during the terms of the Contract. Sufficient proof of compliance with this section must be furnished at the time of execution of this Contract. Failure to provide and continue in force such insurance as aforesaid shall be deemed a materials breach of the Contract and shall operate as an immediate termination thereof. The attention of the Contractor is directed to that portion of M.G.L. c.149 §34A which provides that whoever violates any of its provisions shall be punished by a fine of not more than One Hundred Dollars (\$100.00) or by imprisonment for six (6) months, or both; and, in addition, any Contractor who violates any provision of this section shall be prohibited from contracting, directly or indirectly, with the Commonwealth or any political subdivision thereof for the construction, alteration, demolition, maintenance or repair of, or addition to, any public works or public building for a period of two (2) years from the date of conviction of said violation.
- d. The Contractor shall pay to any reserve police officer employed by them the prevailing rate of wage paid to regular police officers, as required by M.G.L. c.149 §34B.
- 43. Interest of Contractor and Employees: The Contractor covenants that he presently has no interest and shall not acquire interest, direct or indirect, in the study area or any parcels therein or any other interest which would conflict in any manner or degrees with the performance of their services hereunder. The Contractor further covenants that in the performance of the Contract, no person having any such interest shall be employed. Further, the Contractor shall adhere to the provisions of the Hatch Act (5 USC 1501 et seq.), which limits political activities by

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- employees whose principal employment is in connection with an activity which is financed in whole or in part by Federal funds.
- 44. <u>Severability:</u> If any provision of this Contract is held invalid, the remainder of the Contract shall not be affected thereby, and all other parts of this Contract shall nevertheless be in full force and effect.
- 45. <u>Confidentiality:</u> The Contractor will protect the privacy of, and respect the confidentiality of, information provided by program participants, consistent with applicable Federal and State regulations, including M.G.L. c.66 §10, regarding access to public records.

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#### **CONTRACTUAL LIABILITY**

To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify, and hold harmless OWNER and its consultants, agents and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of designers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from performance of the work, provided that any such claim, damage, loss or expense(s) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.

In any and all claims against OWNER or any of its consultants, agents or employees by any employee of CONTRACTOR, and subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, the indemnification obligation under the above paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefits acts.

Policies for General Liability, Automobile Liability, Workers' Compensation Insurance, and Umbrella Liability shall remain in effect during the one-year correction period.

Such insurance as is herein certified applies to all operations of the insured in connection with, and necessary and incidental to, the work herein described at the locations stated.

It is hereby understood and agreed that the above policies will not be restrictively amended, materially changed nor canceled without 30 days' advance notice by registered mail to OWNER.

SAMPLE – DO NOT SIGN	SAMPLE – DO NOT FILL IN
Authorized Representative Signature	Address
(Include Evidence of Authorization)	

# TOWN OF PLYMOUTH CONTRACTOR SAFETY ACKNOWLEDGEMENT FORM

Contractor Compan Bid Number / Assigr Location(s):	y Name: SAMPLE - DO NOT FILL IN ned Work:	
Please initial each ite	em:	
1. Contracto	or, subcontractor, and any/all laborer(s) have been cable to their trade.	trained in the general safe
<del>-</del>	ractor personal or property accidents or cases of jo reported to the Safety Compliance Officer.	b-related injuries/illnesses
3. Contractor and first aid equipme	ors shall know the location of the nearest fire extingent.	uisher, pull station alarm
4. Contractor Town of Plymouth wo	or work will be periodically monitored by managemork requirements.	ent to ensure adherence to
•	g on the nature of the Contractor's activities, the following work: Confined Space Entry Permit, Hot Work ation/Trenching.	
Acknowledgement ar	equired to sign in agreement that they have received and Agreement Form and have read and fully unders and to Procurement, to be forwarded to the Safety Co	tand its contents. This
Federal, State and loo of Plymouth, Massac conducting work for t	ntractor represents and warrant that they shall com cal laws, regulations and rules while engaged to pe husetts. Any Contractors who violate these rules n the Town. The Contractor is also responsible for en comply with the Town of Plymouth's safe work prac	rform services for the Towr nay be precluded from Isuring that all employees
Contractor/Subcont	tractor	
	SAMPLE	_
Print Name	Signature	Date
Safety Compliance	Officer or Designee	
SAMPLE	SAMPLE	
Print Name	Signature	Date

All injuries/incidents must be reported to the Safety Compliance Officer, Michelle Newell, at (508) 747-1620, ext. 10123.

# ATTACHMENT 1 SPECIFICATIONS

Specifications Prepared By:

**GEI CONSULTANTS** Project #2203521

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# SECTION 01 11 00 SUMMARY OF WORK

#### PART 1 – GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Perform all activities and furnish all labor, materials, equipment, subcontractor services, and incidentals to implement the Work in accordance with the Contract between the Owner and the Contractor including, but not limited to, the following:
  - 1. Site mobilization and demobilization
  - 2. Supply and installation of concrete float and steel pipe mooring piles
  - 3. Supply and installation of a new aluminum gangway
  - 4. Repairs of existing Wharf
    - a. Replacement of timber pile caps including removing and reinstalling existing precast concrete deck panels
    - b. Repair (Sistering) of timber pile caps
    - c. Repair/Replacement of select timber piles and pile hardware
    - d. Repair select wave fence slats and wales and replace associated hardware
    - e. Replace select bracing members and associated hardware
    - f. Replace select hardware for existing timber members
    - g. Supply and install new precast concrete deck panels as necessary
    - h. Supply and install cast-in-place concrete slab on steel decking
  - 5. Restoration of all disturbed areas is required
- B. The Project includes Alternate Bid Items which may be awarded at the sole discretion of the Owner and further described as follows:
  - 1. Add Alternate 1 One additional bent of repairs (Bent 7) including, but not limited to:
    - Timber pile cap replacement and hardware repairs
    - All temporary supports, temporary disconnections/diversions of utilities, traffic management, removal and reinstallation of precast concrete complete with new hardware.

- 2. Add Alternate 2 One additional bent of repairs (Bent 8) including, but not limited to:
  - Timber pile cap replacement and hardware repairs
  - All temporary supports, temporary disconnections/diversions of utilities, traffic management, removal and reinstallation of precast concrete complete with new hardware.
- 3. Add Alternate 3 One additional bent of repairs (Bent 9) including, but not limited to:
  - Timber pile cap replacement and hardware repairs
  - All temporary supports, temporary disconnections/diversions of utilities, traffic management, removal and reinstallation of precast concrete complete with new hardware.
- 4. Add Alternate 4 One additional bent of repairs (Bent 10) including, but not limited to:
  - Timber pile cap replacement and hardware repairs
  - All temporary supports, temporary disconnections/diversions of utilities, traffic management, removal and reinstallation of precast concrete complete with new hardware.
- 5. Add Alternate 5 One additional bent of repairs (Bent 11) including, but not limited to:
  - Timber pile cap replacement and hardware repairs
  - One additional timber pile replacement at Bent 11
  - All temporary supports, temporary disconnections/diversions of utilities, traffic management, removal and reinstallation of precast concrete complete with new hardware.
- 6. Add Alternate 6 Replace all Precast Concrete Panels Bents 1 to 4 including, but not limited to:
  - Supply and install 26 additional replacement concrete panels
  - All new hardware and removal of existing is measured and paid under Base Bid
  - Store removed panels as directed by the Owner
- 7. Add Alternate 7 Additional Cost for Cast in Place Deck including, but not limited to:
  - All additional costs for supply and installation of cast in place concrete deck on metal decking instead of the precast concrete panels included under the Base Bid and Add Alternate 6
- C. All tasks, requirements, deliverables, etc. contained in the Contract Documents are the sole responsibility of the Contractor unless specifically assigned to Others. Project Work to be performed by the Contractor includes, but is not limited to, the following:

- 1. Prepare and implement a Contractor Health and Safety Plan.
- 2. Install, operate and maintain temporary facilities and controls, including:
  - a. Worker health and safety measures.
  - b. Environmental controls
- 3. Establish survey control points, as necessary.
- 4. Obtaining all construction-related permits and clearances, as required, for completion of the Work.
- 5. Read, understand, and abide by the provisions of all permits and provide coordination and adequate notice as may be required by the regulatory agencies.
- 6. Demobilize and promptly remove all contractor supplies, equipment, and tools from the Site after completion of the Work. Restore, repair, or replace utilities, and other features that were removed, damaged, destroyed, or disrupted during construction.
- 7. Provide and perform any other equipment, Work, or submittals required to facilitate items above and the Work shown on the Contract Drawings.

#### 1.02 PROJECT CONDITIONS

A. Information regarding Site conditions is intended to assist the Contractor in preparing their Bid. The Owner and Engineer guarantee neither the accuracy of this information nor that this information is necessarily indicative of all conditions that may by encountered, therefor the Contractor agrees that it shall neither have nor assert against the Owner or Engineer any claim for damages by reasons of inaccuracy, inadequacy, incompleteness, or other deficiency of the information provided. The Contractor shall satisfy/verify for themselves all existing conditions, including understanding the site date presented in the Bid Documents, affecting their Work by personal investigation. Failure by the Contractor to understand and verify all existing site conditions shall not result in additional charges to the Owner. Also, neither the information provided by the Engineer, the Owner, or their agents or employees, shall act to relieve the Contractor of any responsibility hereunder from fulfilling all the terms and requirements of the Contract Documents.

#### 1.03 CONTRACT DOCUMENTS

- A. The Contract Documents include all Specifications, Contract Drawings, figures, and conditions included or referenced in the Invitation for Bids package, and any subsequently approved Change Orders.
- B. The organization and division of Work contained within the Contract does not make the Engineer or the Owner representative an arbitrator to establish contract limits between the Contractor and any Subcontractor.

#### 1.04 ORDER OF PRECEDENCE

- A. In the event of a conflict between any of the Contract Documents, the following order of precedence will be applied to determine which document will govern (first document listed being of highest precedence):
  - 1. Agreement
  - 2. Contract Supplemental Conditions issued by the Owner
  - 3. Contract Drawings
  - 4. Specifications
  - 5. MA Highways Standard Spec.
- B. Any conflicts discovered within the Contract Documents should be immediately brought to the attention of the Owner.

#### 1.05 CONTRACTOR REQUIREMENTS

- A. Perform the scope of Work contained in the Contract Documents.
- B. Comply with the requirements of the Contractor Health and Safety Plan. Take precautions as necessary to protect the public and work force personnel from potential hazards.
- C. For any Work performed in close proximity to residential or commercial properties, utilities, or any other third-party property, take appropriate precautions to protect the property, utility lines, fences, and other structures and/or related appurtenances from damage.
- D. Repair any damage caused directly or indirectly by the Contractor outside the Project limits, as directed by the Owner, at no additional cost to the Owner.
- E. Comply with all applicable OSHA safety regulations during the performance of the Work.

#### 1.06 CONTRACT DRAWINGS AND SPECIFICATIONS

- A. Maintain at the Site, two (2) copies of all Contract Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders, schedules, and instructions, in good order. Mark one (1) set to record all changes made during construction and keep one (1) set clean of all markings. Make both sets readily available for review by a designated agent.
- B. The Contract Drawings include notes. Refer to the Contract Drawings in conjunction with the Specifications.

#### **PART 2 - PRODUCTS**

Not Applicable

# **PART 3 - EXECUTION**

Not Applicable

# PART 4 – MEASUREMENT AND PAYMENT

#### 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

\*\*\*END OF SECTION\*\*\*

# SECTION 01 14 00 WORK RESTRICTIONS

#### PART 1 – GENERAL

#### 1.01 USE OF PREMISES

- A. Confine construction operations to areas indicated within the Limits of Construction on Drawings. Do not disturb portions of site beyond areas in which the Work is indicated.
- B. Space for staging work and related operations of Contractor may be provided by the Owner and will be delegated as applicable per availability on the Drawings. All areas used for staging shall be coordinated with the Owner.
- C. No work shall be done outside of standard working hours, on holidays, or weekend, unless prior written approval has been obtained from the Owner. Standard working hours are Monday through Friday 7 AM to 5 PM.
- D. Work may not be performed and materials may not be delivered to the job site except during times when Engineer or representative is present on site.

#### 1.02 ACTIVITY REGULATIONS

A. All personnel employed on the site shall become familiar with and obey site regulations including safety, fire, traffic, and security regulations. Hard hats, safety vests, steel toe shoes, and all other applicable personal protective equipment (PPE) shall always be worn on site.

#### 1.03 PROTECTIVE BARRIERS AND FENCING

- A. Contractor shall provide, erect before any work begins, and maintain during the progress of the Work, any and all necessary protective barriers and/or fencing, as indicated on the Drawings or otherwise requested by the Owner and approved in writing. The Contractor is responsible for ensuring that work areas are secure and safe at all times.
- B. The area inside protective barriers and fencing shall be maintained by the Contractor for the duration of construction and restored to the same or better condition at project completion.
- C. Contractor shall maintain adequate signage on the fencing to provide adequate protection to moving vehicles, personnel, and public. Any additional signage requirements requested by the Owner shall be performed at no additional cost.

# 1.04 UTILITY CUTOVERS AND INTERRUPTIONS

A. Make utility cutovers and interruptions only after prior approval by the Owner. The Contractor shall provide a diagram or drawing of area to denote the scope of a shutdown

- and boundaries to the Owner at least five (5) working days in advance of the date any utility outage is required.
- B. Ensure that new utility lines are complete, except for the connection, before interrupting service.

#### PART 2 - PRODUCTS

Not Applicable

# **PART 3 - EXECUTION**

Not Applicable

#### PART 4 - MEASUREMENT AND PAYMENT

- 4.01 MEASUREMENT AND PAYMENT
  - A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work it is associated with.

# SECTION 01 18 00 UTILITY PROTECTION

#### PART 1 – GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. This section provides requirements for protection of existing utilities services and structures.
- B. The size and location of existing underground utilities, if note on the drawings, is from the best information available as established from actual field observations and study of existing records. These are noted for informational purposes only and are believed to be correct. However, Contractor shall take sole responsibility for damage to any utility line encountered, whether or not shown on the drawings and whether or not actually located in the field as shown on the drawings. The Contractor shall note that utility lines beneath the pier are not shown but include gasoline, diesel, water, sewer pump out, electrical, communications and cable. Each ticket booth on the pier has utility connections.

#### 1.02 RELATED DOCUMENTS

A. Examine all Drawings and Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 UTILITY SHUTDOWNS

A. Make utility shutdowns only after prior approval by the Owner. The Contractor shall provide a diagram or drawing of area to denote the scope of a shutdown and boundaries at least five (5) working days in advance of the date any utility outage is required.

#### PART 2 - PRODUCTS

Not Applicable

#### **PART 3 – EXECUTION**

#### 3.01 EXAMINATION

- A. Contractor shall locate, expose, and provide temporary support for all existing underground utilities to remain within project area limits in accordance with local, state and federal codes.
- B. Contractor shall determine the actual location of all existing utilities prior to starting any work. If the exact location and/or depth of existing utilities are unknown, the Contractor, prior to beginning construction, shall perform all necessary explorations to locate any facilities which may affect the work.
- C. Contractor shall notify Owner immediately of any utility discrepancies.

- D. Contractor shall inform Owner of existing utility installations that need relocation or temporary disconnection and shall coordinate all such work at no additional cost.
- E. Contractor shall contact all utility providers seventy-two (72) hours prior to beginning excavation and/or grading. Contractor shall contact MA Dig Safe (call 811).
- F. Contractor assumes all responsibility for determining the utility providers and utilities encountered in work limits and for contacting these utility providers.

#### 3.02 RELOCATION

A. The Contractor shall coordinate and temporarily relocate or disconnect all utilities which interfere with the work. All disconnected utilities shall be reconnected unless agreed otherwise by the Owner. The Contractor will be responsible for requests that utility providers relocate their utilities for Contractor's convenience in construction of any portion of the work. The cost of all such relocations and/or temporary disconnection and reconnection shall be at Contractor's expense.

#### 3.03 UTILITY IMPACTS

- A. Where Contractor's operations may cause damage or inconvenience to communications, telephone, television, oil, gas, electricity, water, sewer, irrigation, or any other utilities or services, Contractor's operations shall be suspended until all arrangements necessary for the protection of these utilities and services have been made by Contractor.
- B. Contractor shall protect all utility poles from damage. If interfering utility poles, guy wires, or anchors are encountered, Contractor shall notify Owner and the appropriate utility provider at least forty-eight (48) hours in advance of construction operations to permit the necessary arrangements for protection or relocation of the interfering structure.
- C. The Contractor is responsible for mitigating hazards associated with excavating in the proximity of known and identified utilities. Contractor shall hand excavate or vacuum excavate all material within three (3) feet of any know existing utility.
- D. Contractor shall replace, at Contractor's sole expense, any and all other existing utilities or structures removed or damaged during construction, unless otherwise provided for in these contract documents or ordered by Owner.
- E. Contractor shall be solely and directly responsible to the providers of such utilities and services for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage, which may result from the construction operations under this agreement.
- F. Neither Owner nor its officers, agents or representative shall be responsible for damages as a result of Contractor's failure to protect utilities encountered in the work.

G. Full compensation for compliance and cooperation, as required by this section, is considered to be subsidiary to other work items and no additional compensation will be allowed.

#### 3.04 PROCEDURES FOR DAMAGED OR CUT UTILTIES

- A. If a utility is accidentally damaged, the Contractor shall evacuate all personnel to a safe distance. No one shall be permitted to work on a damaged line or pipe until it is proven safe.
- B. The Contractor shall notify the Owner of any incidents. The Contractor is responsible for filling out required reports concerning the incident.
- C. The Contractor shall not repair or continue work until Owner has released the area and proper Lock Out Tag Out (LOTO) or controls are in place.
- D. Prior to covering the utility, the Contractor shall notify the Owner that repairs are complete. The Contractor shall not cover the utility until the Owner has verified and approved the repair, inclusive of the placement of any required utility marking tape.

#### PART 4 - MEASUREMENT AND PAYMENT

#### 4.01 MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work it is associated with.

# SECTION 01 30 00 ADMINISTRATIVE REQUIREMENTS

#### PART 1 – GENERAL

#### 1.01 SUMMARY

A. This Section describes the Project administrative requirements, the minimum level of coordination and meetings require to execute the Work and required pre-mobilization submittals.

#### 1.02 ON-SITE CONSTRUCTION PERSONNEL

- A. The Contractor is to maintain a full-time on-Site Superintendent, who will be responsible for quality assurance, Contractor health and safety, and competent person(s) for the duration of the Work. The Superintendent will be responsible for the supervision and/or coordination of all Contractor employees, Subcontractors, manufacturers, fabricators, suppliers, distributors, installers, and testing agencies whose services, materials, or equipment are required to ensure the completion of the Work. The Superintendent will have sufficient qualifications, experience, and authority to act as a single point of contact for the on-Site staff, and to make adjustments to the means and methods as needed and as requested by the Owner.
- B. The Owner will make periodic visits to the Site to observe the Work. The Owner will not direct the Contractor with regard to their means and methods of construction but may identify areas of non-conformance with the Specifications that require redress by the Contractor.

#### 1.03 MEETINGS

- A. Attend all Project meetings as deemed necessary by the Owner during the term of the Contract.
- B. A pre-construction meeting will be held at the Site prior to the start of the Work. At a minimum, the Contractor's Project Manager and Superintendent for the Project will attend the meeting. It is recommended that the Contractor assemble input from primary Subcontractors prior to this meeting.
  - This meeting is intended to make certain that the Work is properly scheduled, responsibilities are coordinated among Subcontractors and suppliers, and that those responsibilities are reflected on the Contractor submittals. Questions concerning any other aspect of the Project may also be addressed.
- C. Beginning with the mobilization to the Site, at a location designated by the Owner, the Contractor will facilitate weekly construction meetings for the duration of the Work. Present a progress update at weekly construction meetings that includes tasks completed from the prior week, currently active tasks, and tasks/activities planned for

the next two (2) weeks along with an updated Project schedule. The format of the two (2) week look ahead must be approved by the Owner.

- D. The standard day and time for the weekly construction meeting will be established based on mutual agreement between all regular participants.
- E. Individuals authorized to discuss and make decisions on behalf of the Contractor, relative to the meeting agenda, must participate in all weekly construction meetings.
- F. All expenses associated with attending the meetings, except those that are incurred by the Owner, their representatives, or consultants, are to be borne by the Contractor.

#### 1.04 REQUESTS FOR INFORMATION, CLARIFICATIONS, AND CHANGES

- A. All requests for Project information, clarifications, or changes in the requirements of the Contract Documents must be made in writing to the Owner.
- B. Written requests must be provided regardless of any preceding conversations and preliminary decisions regarding the subject matter(s).
- C. The Owner will provide written responses to each request.
- D. The Owner may also issue clarifications and/or amendments based on their own assessment of Project needs.
- E. Any potential increases or decreases in Contractor compensation due to amendments will be in accordance with the provisions of Supplemental Conditions.
- F. If latent or unforeseen conditions require modifications to the Contract, the Contractor must propose changes in the Work by submitting a detailed request to include labor rates, equipment rates, material costs, etc. for a change to the Owner.

#### 1.05 PROJECT RECORD DOCUMENTS

- A. Keep on file at job site one complete set of up-to-date Contract Documents, including drawings and specifications, addenda, shop drawings and manufacturer's data, testing data, change orders, field orders and other modifications. Documents shall be neatly and securely store in files or on racks, clearly indexed by trade activity or specification section, and shall not be used for construction purposes.
- B. Legible mark significant field changes such as the following, using red colored pencils or felt-tipped pens:
  - Drawings: locations of concealed utilities, field changes of dimension and detail, changes resulting from change order or field order, and details not on original drawings.
  - 2. Specifications: manufacturer and model number of equipment actually installed.

- 3. Shop Drawings and manufacturer's literature: changes made after the Owner's review.
- C. At completion of the work, deliver completed record documents to the Owner. Final payment for project will not be made until the Owner reviews and approves these documents.

#### 1.06 PRE-MOBILIZATION SUBMITTALS

A. All submittals are subject to review and approval by the Owner. Provide all submittals to the Owner who will then forward them onto the appropriate party for review. Submittals will not be approved until the reviewing party has determined that they meet the minimum requirements of these specifications. Claims for lost time or requests for extensions based on rejected pre-mobilization submittals will be denied.

# B. Contractor Health and Safety Plan:

1. Prepare and submit a site-specific Contractor Health and Safety Plan.

# C. Project Schedule:

 Prepare a Critical Path Method (CPM) or bar chart project schedule and provide it to the Owner at the first post-award meeting. Update and disseminate the schedule on a weekly basis.

#### D. Pre-Construction Condition Documentation:

- 1. Perform a pre-construction condition documentation of the site to fifty (50) feet beyond the Project limits under the supervision of the Owner.
  - a. Submit the findings of the pre-construction condition documentation to the Owner prior to mobilization.
  - b. Include video/photographic documentation of the existing conditions of the Site and surrounding structures, including shoreline, buildings, or other structures.
  - c. Claims determined to be resulting from pre-existing structural and/or cosmetic damage, not identified during the pre-construction survey, will be the sole responsibility of the Contractor to remedy to the satisfaction of the applicable owner(s).

# E. Schedule of Permits:

 Submit copies of all supplemental and/or recurring data required by the permits to the Owner, as needed. Include documentation that the supplemental data was provided to the entity that issued the permit, according to the schedule required by the permit. 2. Submit copies of any Contractor obtained permits to the Owner.

#### 1.07 DAILY REPORT

- A. Prepare a daily report summarizing the staff and equipment used and Work performed. The Contractor's internal documentation used for this purpose may fulfill this requirement, subject to approval by the Owner. At a minimum, the daily report will include the following additional items:
  - 1. Summary of any safety related issues including a summary of the daily safety meeting and running total of safe hours worked.
  - 2. Approximate amount of work completed for the reporting period and a brief description of where the Work was being performed.
- B. Submit the daily report to the Owner by 10 AM of the next calendar day.

#### PART 2 - PRODUCTS

Not Applicable

#### **PART 3 - EXECUTION**

Note Applicable

# PART 4 - MEASUREMENT AND PAYMENT

#### 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

# SECTION 01 33 00 SUBMITTAL PROCEDURES

#### **PART 1 – GENERAL**

#### 1.01 SUMMARY

A. This section summarized the protocol and procedures for the preparation and delivery of submittals to the Owner.

# 1.02 GENERAL REQUIREMENTS

- A. The Contractor shall review and approve all submittals prior to submittal to the Owner.
- B. Provide all submittals in electronic format directly to the Owner. The Owner may require review and recommendation by Engineer prior to approval. The Owner reserves the right to request that any submittal be provided via paper copy.
- C. Include calculations, Shop Drawings, plans, reports, records, photographs, diagrams, and details with submittals, as needed, to facilitate the review and/or approval process.
- D. For all submittals requested via paper copy, provide three (3) copies unless otherwise directed.
- E. Contractor shall submit all submittals to the Owner in sufficient time for checking and processing. Shop Drawings shall be of sufficient clarity so that copies thereof will be legible.
- F. All submittals by subcontractors for approval shall be send directly to the Contractor for approval. The Contractor shall be responsible for their submission to the owner at the proper time so as to prevent delays in delivery of materials.
- G. All Submittals shall be referenced properly to indicate clearly the location, service, and function of each particular item and the specification paragraph under which it is being furnished.
- H. Submittals that are related to or affect each other shall be forwarded simultaneously as a package to facilitate coordinated review. Uncoordinated submittals will be rejected.
- I. The Owner reserves the right to require submittals in addition to those called for in individual sections.
- J. The term "Shop Drawings" includes drawings, diagrams, schematics, descriptive literature, illustrations, schedule, performance and testing data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract.

- K. Provide submittals electronically in the format requested (i.e. document file, drawing file, image file, etc.). For electronic drawings, submit AutoCAD 2018 (or later) file using the e-transmit feature (i.e. include external references, image files, color table file, font file, line file, etc.). Convert all AutoCAD add on data to AutoCAD format. Use descriptive layer titles (i.e. not numbers or internal use acronyms). Use extensive layer control and use line color by layer and line type by layer management. AutoCAD files of the Contract Drawings will be made available to the Contractor selected to perform the Work, upon request.
- L. The Contractor shall stamp each sheet of each submission with a rubber stamp stating that they have examined and checked the submission and shall date and sign each. Any submission, which, upon examination by the Owner, shows evidence of not having been thoroughly checked will be returned to the Contractor for completion of checking before it will be considered for review.
- M. Certifications must be signed by an officer or other individual authorized to sign on behalf of the entity. Submittals requiring preparation by an engineer or surveyor must be signed and sealed by a Professional Engineer/Surveyor licensed to practice engineering in the State of work. Calculations shall be organized, legible and provide clear indications fo the checks being performed, the codes being followed and all assumptions made.
- N. Schedule submittals to expedite Work. Provide the Owner a minimum of ten (10) Business Days, excluding transmittal time, for review.

# 1.04 SUBMITTAL PROCEDURES

- A. Each Submittal shall be numbered with the project name (abbreviated), Specification section and submittal number in consecutive order (Ex. NAME-013300-#). Where resubmission is required, a letter shall be assigned to designate each resubmission (Ex. NAME-013300-#A, NAME-013300-#B, ect.).
- B. Use a cover form for each submittal. Include the Project name, Project number used by the Owner, date, submittal number, submittal description/title, submittal exclusions, and deviations from the Contract Documents (if any) on each cover form. The submittal cover form must be signed by an individual authorized to sing documents on behalf of the Contractor.
- C. Use the same units of weight and measures on submittals that are used in the Contract Documents.
- D. All details on Shop Drawings submitted for approval shall show clearly the relation of the various parts of the work, and where correct fabrication of the work depends upon field measurements; such measurements shall be made and shall be noted on the Shop Drawings before being submitted for approval.
- E. Approval by the Owner shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with requirements

of this Contract, except with respect to variations described and approved in accordance with Paragraph F below.

- F. Identify variations form the Contract Documents. Contractor shall describe such variations in writing, separate from the drawings, at time of submission. All such variations will be subject to approval by the Owner.
- G. Resubmit submittals if requested by the Owner. When performing a submittal revision, identify all changes made since previous submission. For each re-submittal allow the same number of workdays required for review as the original submittal.
- H. Submittals not requested will not be recognized or processed.
- I. The Contractor shall distribute approve submittals to job site and record documents files and to suppliers and subcontractors as required.
- J. Samples required by the specifications shall be submitted after the award of the Contract to the Owner. No material for which samples are required shall be fabricated or delivered to the site for use until representative samples of same have been approved in writing by the Owner. Such samples shall be furnished and delivered by the Contractor without charge.
  - 1. All color samples shall be reviewed and approved by the Owner prior to inclusion in the work.
  - 2. Each sample shall be labeled to designate the material or product, the name of its producer, the name of the Contractor, and the name and number of the project; and each submission shall be accompanied by a certificate describing each sample submitted for approval, certifying the material, equipment or accessory submitted complies with Contract requirements, and including the name and brand of product, the name and address of manufacturer, the name of the Contractor and the name of the project.
  - 3. Approved samples, unless incorporated in the work or otherwise specified, shall be kept on file and accessible for inspection by the Owner until final acceptance of the project. If return on the samples is not requested within thirty (30) days after the acceptance of the project, they will be considered unclaimed material and disposed of by the Owner.
  - 4. Such samples as may be required for check tests shall be furnished by the Contractor without extra charge. Check tests will be made on materials delivered for use only as frequently as the Owner considers necessary to ensure compliance of materials used with Contract requirements. The cost of testing materials, or equipment, or accessories to check for compliance with specification requirements shall be borne by the Contractor.

#### 1.04 SUBMITTAL REGISTER

A. Maintain a technical submittal register at the Site. Including the submittal number, description, date submitted, status, and date of approval/rejection.

#### 1.05 SUBMITTAL REVIEW

- A. Submittals will be reviewed solely for the purpose of determining whether the information contained in the submittal conforms to the design concept of the Contract Documents. Submittals will be returned with he following classifications:
  - 1. No Exceptions Taken: Work may proceed, no exceptions taken.
  - 2. Reviewed as Noted: Work may proceed subject to comments, resubmittal not required.
  - 3. Revise and Resubmit: Work may not proceed, resubmittal required for indicated items. Proceed with Work on other items subject to comments.
  - 4. Rejected: Work may not proceed, resubmittal required, submittal unresponsive and/or not in conformance with Contract Documents.
- B. Any review performed by the Onwe ris for the limited purpose of checking for conformance with the information given and the design concept expressed in the Contract Documents. Review is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions or quantities. Approval of a specific item does not constitute approval of an assembly of which the item is a component. The review and approval of the Contractor's submittals does not relieve the Contractor from complying with the requirements of the Contract Documents. The Contractor is responsible for: dimensions to be confirmed and correlated at the jobsite; fabrication processes and construction means, methods, techniques, sequences or procedures; coordination of the Work of all trades; and performing all Work in a safe and satisfactory manner.

#### 1.06 CERTIFICATES OF COMPLIANCE

- A. Certificates must be signed by an official authorized to sing on behalf of the manufacturing or testing company.
- B. For each certification, include the name and address of the Subcontractor, name of the requestor, the Project name and location, relevant test data (if required), and the dates of shipment and delivery.
- C. Certifications do not relieve the Contractor from the requirement for furnishing materials that comply with the requirements of the Contract Documents.

#### 1.07 INVOICES

- A. Submit monthly invoices in accordance with the provisions of the Supplemental Conditions.
  - 1. Submit invoices on a form approved by the Owner with an updated schedule showing contract values, approved Change Orders, Work completed to date, current invoice and quantity amounts, and balance to complete for each bit item.
  - 2. No payment will be made unless all the proper supporting documentation has been submitted and accepted by the Owner.

#### PART 2 - PRODUCTS

Not Applicable

#### **PART 3 - EXECUTION**

Not Applicable

# PART 4 – MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement of payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

# SECTION 04 41 00 REGULATORY REQUIREMENTS

#### PART 1 – GENERAL

#### 1.01 DESCRIPTION OF WORK

A. This Section covers the general regulatory requirements pertaining to the Work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the Contract Documents.

#### 1.02 RELATED DOCUMENTS

A. Examine all Drawings and Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 AUTHORITY AND PRECEDENCE OF CODES, ORDINANCES, AND STANDARDS

A. Authority: All codes, ordinances and standards referenced in the Drawings and Specifications shall have the full force and effect as though printed in their entirety in the Specifications.

### B. Precedence:

- 1. Where specified requirements differ from the requirements of applicable codes, ordinances and standards, the more stringent requirements shall take precedence.
- 2. Where the Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, the Drawings and Specifications shall take precedence so long as such increase is legal.
- 3. Where no requirements are identified in the Drawings or Specifications, comply with all requirements of applicable codes, ordinances and standards of authorities having jurisdiction.

# 1.04 STATUTORY AND JURISDICTIONAL REGULATIONS

- A. Contractor shall conform to all applicable federal, state, and local codes, laws, ordinances, rules and regulations, whether or not referenced in the Contract Documents.
- B. Code, laws, ordinances, rules and regulations referred to shall have full force and effect as thought printed in full in these Specifications. Code, laws, ordinances, rules and regulations are not furnished to Contractor because Contractor is assumed to be and shall be familiar with these requirements, including readily available access to these requirements. Contractor and each subcontractor or supplier engaged in construction of this project shall be thoroughly familiar with the codes and regulations applicable to

their specific construction activities. Where conflict among the requirements or with these Specifications occurs, the most stringent requirements shall be used with no change in Contract Sum or Contract Time.

- C. Where such laws, ordinances, rules and regulations require more care or greater time to accomplish work, or require better quality, higher standards or greater size of products, work shall be accomplished in conformance to such requirements with no change to the Contract Time and Contract Sum, except where changes in laws, ordinances, rules and regulations occur subsequent to time of issuance of permits.
- D. No Change Order shall be considered for any change in any applicable federal, state or local code or regulation if similar language existed in an alternate applicable regulation in force at the time of issuance of permits.
- E. Contractor shall not allow design or construction of any conditions wherein the finished work will not comply with current applicable codes. No Change Order shall be considered for the work correction of any work not complying with code.
- F. Unless otherwise specified, specific references to codes, regulations, standards, manufacturers' instructions, or requirements of regulatory agencies, when used to specify requirements for materials or design elements, shall mean the edition of each in effect as identified in the Contract Documents.
- G. Contractor shall maintain copies of regulatory reference manuals and code books on the job site for reference during planning, submittal processing and field installation of specific work.

# 1.05 CONFLICTS

- A. Unless otherwise directed by the Owner, if a conflict exists between referenced regulatory requirements, comply with the one establishing more stringent requirements.
- B. Unless otherwise directed by the Owner, if a conflict exists between referenced regulatory requirements and the Contract Documents, comply with the more stringent requirements.

# 1.06 CONTRACTOR PERMITTING REQUIREMENTS

- A. Post issued permits at work sites as required by regulatory agencies. Permits and compliance with regulatory requirements shall be incorporated or referenced in Contract Documents.
- B. Maintain communication with regulatory personnel and the Owner during construction, use mitigation measures in a proactive fashion, and resolve issues in a timely manner to avoid regulatory conflict.
- C. Use specific procedures and policies, training programs, teamwork, documentation, and accountability from the time of notice-to-proceed through project close-out.

- D. Conduct field compliance inspections and monitoring regularly in coordination with regulatory inspectors.
- E. Provide training to construction personnel prior to their performance of work so that they understand environmental details associated with work execution.
- F. Maintain a consistent interface with regulatory agencies, documentation, and compliance monitoring through construction to support efficient permit close-out.

#### 1.07 SUBMITTALS

A. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgements, correspondence, records, and similar documents, established for compliance with specified standards and regulations bearing on performance of the work. Maintain copies of the aforementioned documents at the project site at all times.

#### 1.08 CONTRACTOR LICENSING

A. Contractor shall be licensed as applicable to the Work at the Site. All expenses and procedures related to licensing shall be the Contractor's responsibility.

#### PART 2 - PRODUCTS

Not Applicable

#### **PART 3 - EXECUTION**

Not Applicable

# **PART 4 – MEASUREMENT AND PAYMENT**

# 4.01 MEASUREMENT AND PAYMENT

A. No separate measurement of payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

# SECTION 01 50 00 TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

#### PART 1 – GENERAL

#### 1.01 RELATED DOCUMENTS

A. Examine all Drawings and Sections of the Specifications for requirements and provisions affecting the work of this Section.

#### 1.02 GENERAL DESCRIPTION

- A. Work under this section shall include providing temporary facilities and site controls throughout the construction phase and as required to perform the work specified within the contract documents including but not limited to:
  - 1. Site Security
  - 2. Material Storage
  - 3. Site Safety
  - 4. Signage

# 1.03 FACILITY REQUIREMENTS

# A. Provie Site Security

- 1. Provide secure temporary closures to prevent unauthorized entry to the work are including:
  - a. Temporary 6-foot minimum height chain link fence
  - b. Locked gate
  - c. Signage including 24-hour emergency contact visible from outside the work area
  - d. Relocation of temporary fence as required to suit work progress
- 2. Furnish, install, and maintain a bulletin board, protected from the elements in a prominent location at the work site, accessible to all employees and workers at the site, on which date of concern to the employees with be posted.

# B. Provide for Material Storage

1. Temporary structures shall be constructed in a structurally-sound, weatherproof manner.

- 2. Confine storage of materials to within the Limits of Work and areas as may be designated by the Owner.
- 3. Provide temporary sheds or other covered facilities for storage of materials subject to weather damage. Number and size of structures shall be subject to Owner's approval. Locate structures to avoid interference with work and relocate as required throughout progress of work.
- 4. Remove structures and surplus stored materials at completion of work.
- 5. Contractor shall comply with storage requirements of the regulatory permits.
- C. Provide marked metal containers with tight-fitting covers for edible debris, enforce employees use of the containers. Provide on-site dump container for collection of waste material. Periodically remove and legally dispose of waste material off-site. Schedule cleaning operations so that dust and other contaminants resulting from cleaning will not fall on wet, newly finished surfaces. Dispose of volatile wastes such as mineral spirits, oil or paint thinner in accordance with local and state regulations.
- D. Maintain site, temporary structures, storage areas, temporary fencing, etc. in a neat and orderly manner.
- E. Provide staging, hoists, temporary stairs, ladders, chutes, etc., as required, complying with applicable safety codes.
- F. The Contractor, including all subcontractors, will not be permitted to display any descriptive signs indicating their company names and names of equipment of materials installed in the work beyond the specific requirements established with the Contract Documents.

## 1.04 FIELD LAYOUT

- A. Contractor shall maintain a level, rod, and total station on job, and shall employ competent personnel for use thereof. The Owner and Engineer shall have reasonable use of these instruments at all times.
- B. Project survey information has been located on drawings for Contractor's use. Contractor shall establish benchmarks in at least two (2) widely separated locations, and shall establish and maintain grades, lines, levels, and other dimensional reference guides as required. Annotate project record documents to indicate all modifications of grades, utilities, etc.
- C. Scale indicated on the Contract Drawings is for establishing reference points only. Actual field conditions shall govern all dimensions.

### 1.05 NOT USED

#### 1.06 SAFETY AND PROTECTION

- A. Comply with applicable safety regulations, including ANSI Series A10, Safety Requirements for Construction and Demolition, and OSHA Part 1926, Construction Safety and Health Regulations. Provide barricades, fences and other protection measures as required.
- B. Minimize storage of flammable materials and ensure that such material is properly handles and stored. Provide fire extinguishers per code requirements and near locations of flammable products. Install prominent signs giving locations of fire alarms. Do not permit use of open fires.
- C. Take all necessary precautions to ensure that finished or partially completed work is properly braced and secured against wind, rain, snow and other adverse weather conditions.
- D. Remove snow and ice from roads, walks, work area, etc., which impedes access or drainage, or presents danger to workmen, public, or property.

#### 1.07 TEMPORARY UTILITIES

- A. Maintain strict supervision to enforce conformance with applicable standards and safe practices and prevent abuse of services. Obtain necessary permits, temporary easements, etc.
- B. Provide all temporary utilities as required by the Owner.

#### PART 2 - PRODUCTS

Not Applicable

# **PART 3 - EXECUTION**

Not Applicable

#### PART 4 – MEASUREMENT AND PAYMENT

#### 4.01 MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

# **SECTION 01 60 00** PRODUCTS AND STANDARDS

#### **PART 1 – GENERAL**

#### 1.01 **GENERAL DESCRIPTION**

- A. Standards (ANSI, ASTM, Federal Specifications, etc.) referenced in specifications are latest edition as of date Contract Documents are issued for bidding. To the extent that more than one standard is referenced, the more stringent (in judgement of the Owner) shall govern. Where compliance with a standard is required, Contractor shall provide affidavit from subcontractor or manufacturer certifying compliance, if requested by the Owner.
- B. The latest edition of following Specifications, Standards and Codes shall be made a part of these specifications:
  - 1. Massachusetts Department of Public Works, Standard Specifications for Highways and Bridges, with all Supplemental Specifications as utilized by the MassDOT.
  - 2. Massachusetts Building Code
  - 3. American Concrete Institute
  - 4. American Institute of Steel Construction
  - 5. American Welding Society
  - 6. Aluminum Association

#### 1.02 **ABBREVIATIONS**

A. Organizations and standards referenced in abbreviated form include the following:

AASHTO American Association of State Highway and Transportation Officials ACI American Concrete Institute AGC Associated General Contractors of America AISC American Institute of Steet Construction
AGC Associated General Contractors of America
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
AISC American Institute of Steet Construction
ANSI American National Standards Institute
ASTM American Society for Testing and Materials
AWPA American Wood Preservers' Association
AWS American Welding Society
MHD Massachusetts Highway Department
MassDOT Massachusetts Department of Transportation
NEC National Electric Code
NEMA National Electrical Manufacturers Association

NFPA National Fire Protection Association OSHA Occupational Safety and Health Administration SS Standard Specifications for Highways and Bridges

UL Underwriters' Laboratories

WWPA Western Wood Products Association

#### 1.03 SUBSTITUTIONS

A. Products of a particular manufacturer are generally specified either on an "or equal" basis or with a list of acceptable alternative manufacturers. Contractor shall submit proposals to substitute products other than those specified in ample time before product is to be incorporated in Work, in order to allow for full investigation of proposal. Proposal shall be thoroughly documented with manufacturers' literature, shop drawings, and samples, as appropriate.

- B. Contractor warrants as part of their request that proposed substitution is comparable in size, operation, material and finish, to product specified. They shall be responsible for coordination of accepted substitution into Work and waives all claims for additional costs related to substitution which subsequently become apparent.
- C. The Owner retains absolute right of approval of any proposed substitution, and may reject same on any ground including function, operation, and appearance.

# 1.04 DELIVERY, STORAGE AND INSTALLATION

- A. Products shall be properly enclosed in containers, boxes, packages, etc., to prevent damage during transportation and handling. Deliver in original unopened containers with labels indicating brand names, model numbers, quality designations, fire-resistance rates, etc.
- B. Store materials delivered to site under cover, in locations secure from vandalism and theft, in full conformance with manufacturers' recommendations. Carefully protect store materials from mechanical damage, dampness, and extremes of temperature.
- C. Products shall be installed, finished and cleaned in strict accordance with manufacturers' instructions, unless otherwise specified, by skilled workmen under adequate supervision. Foremen of installation crews shall have minimum of five (5) years' experience installing that product.
- D. Protect installed products until substantial completion by appropriate means including plastic or canvas sheeting, kraft paper, masking tape, or wood barricades. Remove name plates and other identifying marking from exposed surfaces of manufactured items installed in finished spaces, if requested by the Owner.
- E. Materials shall be stored within the areas designated by the Owner.

# PART 2 - PRODUCTS

Not Applicable

# **PART 3 – EXECUTION**

Not Applicable

# PART 4 - MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASURING AND PAYMENT

A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work item with which it is associated.

# SECTION 01 70 00 PROJECT CLOSEOUT

#### PART 1 – GENERAL

#### 1.01 CLEANING

- A. Use cleaning materials as recommended by product manufacturers and appropriate specification sections. Employ experienced workmen or professional cleaners.
- B. Before inspection for substantial completion, do all necessary cleaning, including the following:
  - 1. Sweep and rinse with clear water exterior paved surfaces, rake clean other site surfaces.
  - 2. Refer to specification sections for additional requirements for particular surfaces.

#### 1.02 SUBSTANTIAL COMPLETION AND FINAL INSPECTION

- A. Submit written certification that project, or designated portion of project, is substantially complete, and request, in writing, a final inspection. The Owner will make an inspection within ten (10) day of receipt of request.
- B. Should the Owner determine that the work is substantially complete, the Owner will prepare a punch list of deficiencies that need to be corrected before final acceptance and issue a notice of substantial completion with the deficiencies noted.
- C. Should the Owner determine that the work is not substantially complete, the Owner will immediately notify Contractor, in writing, stating reasons. After Contractor completes work, they shall resubmit certification and request for final inspection.

#### 1.03 CLOSE-OUT SUBMITTALS

- A. Refer to SUBMITTAL and EXECUTION portion of each specification section for closeout requirements, including operating and maintenance manuals; instructions of Owner's personnel in maintenance and operation of systems; submission of certifications, test reports, etc.; provision of spare parts and maintenance materials, all of which shall be neatly wrapped or packaged in standard sizes and clearly labeled.
- B. Completed project record documents.
- C. Certificate of insurance for products and completed operations.
- D. Types list of all subcontractors and suppliers with addresses and telephone numbers.
- E. Consent of surety to final payment; affidavit that all bills and indebtedness connected with the Work have been paid; and certification of payment from subcontractors and

suppliers, or bond satisfactory to the Owner indemnifying the Owner against liens or other claims.

F. Submissions as may be specified elsewhere within the Contract Documents.

#### G. As-Built Drawings

- 1. Submit electronic copies in CAD and PDF format and four (4) bond stamped copies of As-Built Drawings upon completion and acceptance of work.
- 2. As-Built Drawings shall be complete and shall indicate the true measurement and location, horizontal and vertical, of all new construction. As-Build Drawings shall include:
  - a. Minimum of three (3) ties showing the distance to each feature installed below grade from fixed permanent objects.
  - b. Contain any additional information required by the Owner and/or local municipality shall be stamped with the seal of a Licensed Land Surveyor and or Licensed Professional Engineer in the state of the work performed.

#### 1.04 ACCEPTANCE OF THE WORK

- A. After all deficiencies have been corrected, a Letter of Final Acceptance will be issued. If only designated portions of the project have been inspected, a Letter of Partial Acceptance will be issued for that portion of the Work.
- B. Acceptance may be given prior to correction of deficiencies that do not preclude operation and use of the facility; however, final payment will be withheld until all deficiencies are corrected.
- C. Until receipt of Letter of Final Acceptance, Contractor shall be responsible for the work of this Contract.

## 1.05 POST-CONSTRUCTION INSPECTION

A. Prior to expiration of one (1) year from date of final acceptance, the Owner will inspect the project to determine whether corrective work is required. Contractor will be notified in writing of all deficiencies. In accordance with terms of the General Conditions, corrective work must start on noted deficiencies within ten (10) days of receipt of notification to Contractor.

# PART 2 - PRODUCTS

Not Applicable

# **PART 3 – EXECUTION**

Not Applicable

# PART 4 - MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

# SECTION 02 10 00 SITE PREPARATION

#### 1.01 DESCRIPTION OF WORK

- A. Provide all labor, materials, equipment and supervision necessary to complete work specified in this Section.
- B. Work under this Section, without limiting the generality thereof, consist of the furnishing and installation of materials, equipment, labor, testing, transportation, facilities, and all operations and adjustments required for the complete and operating installation as indicated on the Drawings, stipulated in the Specifications and as reasonably implied by either or both. This includes, but is not necessarily limited to, the following:
  - Mobilization and demobilization of all equipment, labor, materials, supervision, survey and any incidentals required to satisfactorily complete this project in accordance with these Specifications, the Contract Drawings and as directed by the Engineer.
  - Comply fully with all requirements and conditions of all Regulatory Approvals as attached to the Contract Documents including performance of any miscellaneous work required to ensure full compliance and not otherwise covered by individual items in the contract.
  - 3. Provide and maintain all environmental and/or siltation controls for the duration of the project.
  - 4. Site investigation including, but not limited to:
    - a. Location of underground and under pier utilities within the project limits.
    - b. List any other features, utilities, etc. which need to be identified.
  - 5. Coordinating temporary supplies and/or removals by others, including, but not limited to, utility poles and wires and transformers.
  - 6. Perform all other miscellaneous work required to complete the project, but not covered by individual items in the contract.
  - 7. Temporary support or relocation and reestablishment of utilities to the extent required to complete the work.
  - 8. Perform site work operations and the removal of debris and waste materials to ensure minimum interference with navigation, streets, walks, parking facilities, buildings and all other adjacent facilities.

- 9. Obtain Owner's written permission, when required, to close or obstruct street, walks, and adjacent facilities. Provide alternate routes around closed or obstructed traffic ways, when required.
- 10. Obtain written permission from property owners to access and/or cross their properties where an easement has not been granted.
- 11. Control and monitor dust caused by the work and comply with pollution control regulations of governing authorities.
- 12. Provide debris booms and siltation curtains, as required, to meet regulatory agency conditions.
- 13. If the Contractor, in the course of excavation, uncovers or otherwise encounters any artifacts, whether historic or prehistoric, they shall bring them to the immediate attention of the Owner, and stop all work in that vicinity of said artifacts until directed by the Owner.
- 14. If the Contractor, in the course of excavation, uncovers or otherwise encounters any suspected hazardous or unidentified substances, they shall bring them to the immediate attention of the Owner, and stop all work in that vicinity of said substances until directed by the Owner.
- 15. Perform As-Built Survey and provide record drawings to the Owner.
- C. These site preparation requirements shall apply to all project work operations within this Contract.
- D. The lates addition of the following Specifications, Standards and Codes shall be made a part of these specifications:
  - 1. Massachusetts Department of Public Works, Standard Specification for Highways and Bridges, with all Supplemental Specifications as utilized by the MassDOT.

## 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Temporary Construction Facilities and Controls, SECTION 01 50 00,
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 OSHA REQUIREMENTS

A. Pursuant to M.G.L. c.30, §39S, any person signing a contract to work on a public building or public works project estimated to cost more than \$10,000 must certify under the pains

and penalties of perjury that all employees employed on the worksite, or in work subject to the bid, have successfully completed at least ten (10) hours of OSHA approved training. Proof of OSHA certification of all workers onsite will be required by the OWNER prior to the start of work.

#### 1.04 SUBMITTALS

- A. Phasing plan and schedule.
- B. Staging area plan(s) and security fencing.
- C. Location and phasing work plan of staging and construction areas and the schedule for moving materials or equipment into those areas shall be submitted for Engineer's approval prior to mobilization and related site preparation operations.
- D. Updated project schedule shall be submitted weekly for Engineer's approval.
- E. Details of work areas and temporary construction staging as required to prevent debris and dust and other construction materials from entering the water.
- F. Details of work excavation and shoring.
- G. Details of any crane lifting operations and layout including a work plan.
- H. Debris boom and/or siltation curtain to be used in the water, as required by regulatory permits.
- I. Submittals as required by regulatory permits.

#### 1.05 PROTECTION

- A. Protect existing structures and facilities that are adjacent to the work area from damage caused by the project operations. Repair all damage caused to the satisfaction of the Engineer, at the sole expense of the Contractor.
- B. Do not interfere with use of adjacent buildings or facilities. Maintain fee and safe passage to and from adjacent buildings and facilities or both and between them and the public way.
- C. Cease operations and notify Engineer immediately if safety of adjacent structures, workers, or the general public appears to be endangered. Take precautions to properly support structures and protect workers and general public. Do not resume operations until safety is restored.
- D. The Contractor shall erect a construction security fence around their work areas as defined in staging and phasing work plan.

E. The Contractor shall restore all staging and access areas to the pre-construction condition and repair all damage to the satisfaction of the Owner at no additional cost to the Owner.

#### 1.06 MAINTAINING TRAFFIC

- A. Do not close or obstruct roadways or other areas without prior authorization or permits.
- B. Do not close or obstruct vehicle and equipment access at any time.
- C. Do not interfere with navigation at any time except as coordinated with the Plymouth Harbormaster.
- D. Conduct operations with minimum interference to public or private roadways. Coordinate with local and state officials, police, and emergency agencies regarding all operations on public roadways.
- E. All floating equipment shall be kept in good order and properly secured to ensure marine traffic is not impacted to the extent practical by the work.

# 1.07 ENVIRONMENTAL PROTECTION

- A. Comply with all requirements of environmental regulations and Regulatory Approvals.
- B. Provide measures to prevent any construction debris from falling into the water or through the water column. Any material falling into the water shall be retrieved immediately.
- C. The Contractor is hereby made aware that all work is subject to the conditions set forth in the Regulatory Approvals which include, but are not limited to, permits, licenses, etc. issued by the following:
  - 1. Plymouth Conservation Commission: Order of Conditions
    - a. DEP File No. SE57-3388
  - 2. United States Army Corps of Engineers
    - a. File Number NAE-2025-00838
    - b. File Number NAE-1019-1528 (pending)
- D. Copies of the Regulatory Approvals and conditions for performing the work are attached to the Contract Documents. The US Army Corps of Engineers permit for the float expansion (NAE-1019-1528) is pending and at a minimum the Contractor shall assume that all conditions from the authorization NAE-2025-00838 will also apply to the float expansion work. The Contractor shall be responsible for understanding and implementation of the stipulated conditions as a condition of this Contract.

#### 1.08 EXAMINATION OF EXISTING CONDITIONS

- A. The Contractor shall become thoroughly familiar with the existing conditions of the site, consult records and drawings of adjacent structures and of existing utilities and their connections, and note all conditions which may influence the work. The commencement of work signifies the Contractor's acceptance of existing conditions.
- B. Site information: Data on subsurface conditions is not intended as representations or warrants of continuity of such conditions between the locations of data. It is expressly understood that the Owner will not be responsible for interpretations or conclusions drawn from them by the Contractor. Data is made available for the convenience of the Contractor.
  - Additional test borings and other exploratory operations may be made by the Contractor at no additional cost to the Owner, and as in compliance with permits and contaminated soils requirements.

#### PART 2 - PRODUCTS

#### 2.01 MATERIALS

A. Use materials required by the Specification and/or shown on the Contract Drawings. Additional materials needed to complete the work may be selected by the Contractor and used with approval by the Engineer.

# B. CONSTRUCTION FENCE AND JERSEY BARRIERS

- 1. Unless otherwise specified on the Construction documents, Contractor shall provide chain link fencing around perimeter of work area and staging area to prevent public access and provide public safety. The Fence shall be a minimum of 6' high and constructed of galvanized steel chain link with posts at 8' on center. Fence shall be supported by concrete blocks or approved equivalent to receive posts.
- 2. Fence shall be installed around all areas dedicated for construction activities to prevent public access and provide for public safety. Jersey barriers shall be installed in areas of high vehicle traffic or as directed by the Engineer.
- 3. Fence shall be removed or relocated to minimize disruption to vehicle and pedestrian traffic.

# C. FLOATING BOOM WITH SILTATION CURTAIN

- 1. The Contractor shall place a floating boom around all demolition work. The Contractor shall use a floating boom with siltation curtain around the work area to the degree required by regulatory approvals.
- 2. Fabric shall be minimum at 22 oz. 500 lb./inch tensile strength vinyl coated fabric.

- 3. Floatation material shall be marine quality expanded polystyrene which provides 50 lb./ft. of buoyancy.
- 4. Ballast shall be provided by an enclosed galvanized chain weighing approximately 1.5 lb./ft. and having a break strength of 10,600 lbs.
- 5. Depth of curtain shall be based on anticipated water elevation with anticipated changes in elevation and actual bottom elevations at the barrier location.
- 6. The boom shall be large enough to provide protection of the work area the Contractor is working in and shall be moved to new work areas as necessary as the Contractor moves. Limits and location are as shown on Contract Drawings.

#### **PART 3 – EXECUTION**

#### 3.01 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. Notify "Dig Safe" and local utilities and services as applicable prior to conducting any work in order to have all known utilities and services marked out before work begins.
- B. Existing structures and utilities shall be suitable protected from damage, including but not limited to, existing buildings, wharfs and bulkheads, pavements and curbs, lighting, fencing, concrete vaults, manholes, hydrants and utility lines.

# 3.02 PROTECTION OF CONSTRUCTION SITE

A. It is the Contractor's responsibility to secure the construction site, both for the protection of the ongoing work and the protection of the public. The type and location of construction fencing used for this purpose shall be approved by the Owner.

#### 3.03 INSPECTION

- A. The Owner will assign inspectors and/or resident engineers to this project on a full time or part time basis, as required to cover the work under this Contract, as justified by the Owner. The inspector or resident engineer shall be the Owner's representative for this project.
- B. The Engineer must be notified at least forty-eight (48) hours in advance of all material shipments so they can arrange for inspections as the shipments arrive on site.
- C. All materials that are not suitable for placement on this project and/or have been rejected by the Engineer shall be removed from the site immediately. The cost of the removal of these materials shall be the responsibility of the Contractor.
- D. Unless otherwise agreed upon with the Engineer, no work shall be done with materials that will be partially or completely buried or hidden from view without the presence of the Engineer. The Engineer reserves the right to have all materials uncovered for inspection if placed without direct supervision, at the sole expense of the Contractor. No materials

shall be paid for under this Contract that have not been examined and passed by the Engineer, or for any reason are placed outside the prescribed limits of the work.

- E. The Engineer shall be permitted at all times to check the lines, grades, elevations, reference marks, batter boards, etc. set by the Contractor. Errors or discrepancies identified by checks shall be corrected by the Contractor at the Contractor's expense. Additionally, these checks shall not be construed to be an approval of the Contractor's work and shall not relieve or diminish the Contractor's responsibilities for the accurate and satisfactory completion of the entire work. The Contractor shall be available to assist the Engineer with these checks as needed.
- F. Periodic safety walks / safety standdowns should be expected to happen weekly. All items flagged by these walks and/or standdowns will be required to be rectified. Repeat occurrences of safety issue findings will result in a stop work until they are suitable addressed at no cost or schedule delay to the Owner.

#### 3.04 PHASING OF CONSTRUCTION

- A. The Contractor shall coordinate all construction activities with the Owner.
- B. No work shall commence without prior approval of the Owner and approved phasing work plan in place.

#### 3.05 DUST CONTROL

A. The Contractor shall take all necessary measures to keep streets, over which equipment and service for project travel, clean and free from dirt, dust, mud and debris resulting from construction operations. The actions taken shall meet the requirements of all authorities having jurisdiction.

#### PART 4 - MEASUREMENT AND PAYMENT

#### 4.01 METHOD OF MEASUREMENT

- A. Measurement and payment of MOBILIZATION shall be by the Contract LUMP SUM.
- B. Measurement and payment of SITE PREPARATION shall be by the Contract LUMP SUM.

#### 4.02 METHOD OF PAYMENT

- A. Payment for MOBILIZATION shall be by the Contract Price Lump Sum and shall include mobilization, demobilization and all items not otherwise called out for individual price breakdown. Payment under this items shall be made in two (2) installments, fifty percent (50%) at time of project startup and fifty percent (50%) after substantial completion and removal of all Contractor's equipment and personnel.
- B. Payment for SITE PREPARATION shall be by the Unit Price Lump Sum. This price and payment shall constitute full compensation for all labor, equipment, materials, testing,

transportation and supervision for the satisfactory supply and installation of all items under this section including, but not limited to, utility removal and reconnection or diversions, temporary utilities, and temporary removal and reinstallation of ticket booths and shall include all work materials; preparation of the site, all erosion control activities including materials for barriers and siltation curtains; as specified in the permits; and all safety barriers, signage, security requirements for the project site, police details and any other incidentals necessary to complete the work specified herein and as show on the Contract Documents.

#### 4.03 PAYMENT ITEMS

<u>ITEM</u>	DESCRIPTION	<u>UNIT</u>
02 10 00-01	Mobilization	LS
02 10 00-02	Site Preparation	LS

# SECTION 02 41 00 DEMOLITION

#### PART 1 – GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Provide all labor, materials, equipment and supervision necessary to complete the work specified in this Section.
- B. Scope of work includes, but is not limited to, the following:
  - 1. Removal and disposal of damaged concrete panels, concrete deck panels at electrical panel and concrete deck panels at landward edge of pier.
  - 2. Removal and reinstallation or storage of structurally sound concrete deck panels.
  - 3. Removal and disposal of Timber bearing piles, cut-offs, and bracing.
  - 4. Removal and disposal of Timber pile caps.
  - 5. Removal and disposal of Timber fender system pieces including chock, wale, slats, and fender piles.
  - 6. Removal and disposal of asphalt pavement.
  - 7. Removal and dispose of miscellaneous hardware, steel angles, pieces of timber, abandoned utilities, concrete, rubble and other material which are encountered during the course of work which interferes with work specified to be done.
- C. Scope of work includes removal and storage of the following, which are to remain the property of the Owner:
  - 1. Excess structurally sound concrete deck panels as directed by the Owner.

#### 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Site Preparation under SITE PREPARATION, SECTION 02 10 00.
  - 2. Timber Piles under TIMBER PILES, SECTION 31 62 19.
  - 3. Timber components under HEAVY TIMBER CONSTRUCTION, SECTION 06 13 00.
  - 4. Concrete and reinforcement under REINFORCED CONCRETE, SECTION 03 31 30.

B. Examine all Drawings, all Sections of the Specifications, and all material test reports for requirements and provisions affecting the work of this Section.

#### 1.03 SUBMITTALS

A. Contractor to provide certification that all materials to be disposed has been done in accordance with all municipal, state and federal regulations.

### PART 2 - PRODUCTS

Not Applicable

#### **PART 3 – EXECUTION**

- A. Bidders shall examine the site and make their own estimates of the types and quantities of demolition, which will be required to fulfill the Contract requirements.
- B. All work shall be done in accordance with applicable federal, state and local laws, rules, regulations, codes and ordinances and all necessary permits required for the demolition work shall be procured by the Contractor unless otherwise noted.
- C. All materials removed during demolition designated for disposal shall become the property of the Contractor unless otherwise noted.
- D. All materials removed during demolition, except that which is to be reused, shall be disposed of off the site in conformance with all municipal, state and federal regulations.
- E. Debris shall not be allowed to accumulate and shall be sprinkled during handling and loading to reduce dust. All debris shall be either store temporarily in Contractor furnished dumpster type container(s) provided by the Contractor, at Contractor's expense, or shall be removed from the site daily, to assure absolute minimization of dusting and other pollution.
- F. During demolition activities which are over or in water, the area of the demolition work will be enclosed with a floating boom approved by the Engineer.
- G. Contractor shall use extreme caution when demolishing structures. Damage caused to adjacent structures or a structure to remain which is caused by the Contractor shall be repaired by the Contractor as directed by the Engineer at no additional cost to the Owner.

# PART 4 – MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for the work in this Section. Measurement and Payment for this item shall be included within the work it is associated with.

\*\*\*END OF SECTION\*\*\*

# SECTION 03 31 30 REINFORCED CONCRETE

#### **PART 1 – GENERAL**

## 1.01 SCOPE OF WORK

- A. Work under this Section, without limiting the generality thereof, consists of the furnishing and installation of all materials, equipment, labor, testing, transportation, facilities and all operations and adjustments required for the complete and operating installation as indicated on the Drawings, stipulated in the Specifications and as reasonably implied by either or both. This includes, but is not limited to, the following:
  - 1. Cast-In-Place Concrete Slab
  - 2. Replacement Precast Concrete Panel
  - 3. Precast Concrete Utility Manhole
- B. Should drawings not agree within themselves or the specifications, the greater quantity, or superior quality of work or materials shall be included.

# 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Demolition under DEMOLITION, SECTION 02 41 00.
  - 2. Concrete Floating Dock under CONCRETE DOCKS, SECTION 35 51 13.01.
  - 3. Concrete fill for Steel Piles under STEEL PILES, SECTION 31 62 23.
  - 4. Metal fabrications under MISCELLANEOUS METALS, SECTION 05 50 13.
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 QUALITY ASSURANCE

- A. Except as noted, work shall conform to the latest edition of the following code specifications and standards:
  - 1. American Society for Testing and Materials (ASTM)
  - 2. American Concrete Institute (ACI):
    - a. "Building Code Requirements for Reinforced Concrete", ACI 318

- b. "Specifications for Structural Concrete for Buildings", ACI 301
- c. "Recommended Practice for Measuring, Mixing, and Placing Concrete", ACI 304
- d. "Recommended Practice for Cold (Hot) Weather Concreting", ACI 305 and ACI 306
- e. "Guide to Formwork for Concrete", ACI 347
- 3. Concrete Reinforced Steel Institute (CRSI):
  - a. Design of Reinforced Concrete Structures "A Manual of Standard Practice"
  - b. "Placing Reinforcing Bars"
  - c. "Field Handling Techniques for Galvanized Reinforcing Bar"
- 4. The Commonwealth of Massachusetts, Department of Public Works "Standard Specifications for Highways and Bridges" (MHD)

# 1.04 SUBMITTALS

# A. Shop Drawings

- 1. Reinforced steel shop drawings:
  - a. Shall be of such detail and completeness that all fabrications and placement at the site can be accomplished without the use of Contract Drawings for reference.
  - b. Shall include number of pieces, sizes, and grade of reinforcing steel, accessories, and any other information required for fabrications and placement.
  - c. Shall show joint layout and design.
- 2. Precast Concrete shop drawings:
  - a. Shall be of such detail and completeness that all fabrication and placement at the site can be accomplished without the use of Contract Drawings for reference.
  - b. Shall include number of pieces, sizes, and grade of reinforcing steel, accessories, and any other information required for fabrication and placement.
  - c. Shall include details of lifting arrangements.
- 3. Contractor shall check structural and site drawings for anchor bolts, anchors, inserts, conduits, sleeves, and any other items which are required to be embedded in concrete and shall make necessary provisions as required so that reinforcing steel will not interfere with the placement of such embedded items.

- B. Precast concrete manufacturer details and qualifications.
- C. Concrete mix designs for each type of work, each supplier and as specified in this Section.
- D. Concrete break history on the mix design for no less than two (2) years of history.
- E. Concrete repair mortar/manufacturer/design mix.
- F. Name and address of Independent Testing Laboratory in conformance with ASTM E329 for approval by Engineer.
- G. Cold weather concrete protection and curing details in conformance with ACI 305R.
- H. Hot weather concrete protection and curing details in conformance with ACR 306R.
- I. Concrete wind protection and curing details.

# 1.05 TESTING OF CONCRETE

# A. Quality Control:

- 1. Test Specimens: The Contractor will be required to make, cure, and have tested a minimum of one (1) set of five (5) test specimens form the concrete of each day's pour and for each fifty (50) cubic yards of concrete cast in accordance with ASTM Designations C172, C31, and C39. Two (2) cylinders shall be broken after seven (7) days and two (2) cylinders after twenty-eight (28) days. The fifth (5<sup>th</sup>) cylinder shall be stored on the site to the same conditions of the ongoing work as reserve to break if and when the placed concrete does not achieve the required strength at twenty-eight (28) days.
- 2. Slump: A slump test shall be made for each truckload of concrete in accordance with ASTM Designation C143. Slumps greater than design mix limit will be grounds for rejection of the concrete.
- Air Content: The Contractor shall make an air content test from each day's pour of concrete by the pressure method in accordance with ASTM Designation C231. Air contents above or below the limits specified will be grounds for rejection of the concrete.
- 4. Testing: All personnel and laboratories testing concrete shall be licensed by the Commonwealth of Massachusetts.
- 5. Test Failures: In the event the compressive strength of the cylinders, when tested, is below the specified amount, the Engineer may require test cores of the hardened structure to be taken by the Testing Laboratory in accordance with ASTM C-42. If such test indicates that the core specimen is below the required strength, the concrete in question shall be removed and replaces without cost to the Owner. Any

other work damaged because of this concrete removal shall be replaced with new materials to the satisfaction of the Engineer at no additional cost to the Owner. The cost of coring will be deducted from the Contract amount. Where core cylinders have been taken by the Testing Laboratory and the concrete proved to be satisfactory, core holes shall be filled in a manner satisfactory to the Engineer at not additional cost to the Owner.

B. The Contractor shall coordinate the date and location of tests with the Engineer before any concrete work is started.

# 1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Reinforcing steel shall be transported to the site, stored, and covered in a manner which will ensure that no damage shall occur to it from moisture, dirt, grease, or any other cause that might impair bond to concrete or chip coating. A sufficient supply of approved reinforcing steel shall be stored on the site at all times to ensure that there will be no delay of work. Identification of steel shall be maintained after bundles are broken.

# PART 2 - PRODUCTS

# 2.01 MATERIALS

- A. The following materials shall be used unless specifications define elsewhere with a specific construction element.
- B. Portland Cement: ASTM C150, Type II or V of U.S. manufacture. Only one brand of cement shall be used on the project.

# C. Aggregate:

- 1. Fine Aggregate. ASTM C33, clean and graded from ¼ inch to fines.
- 2. Course Aggregate. ASTM C33, clean and graded from ¼ inch to maximum sizes hereinafter specified.
- D. All admixtures shall be from the same manufacturer.
- E. Air Entraining Agent: Conforming to ASTM C260 for Air-Entraining Admixtures for Concrete.
- F. Water Reducing Agent: Conforming to ASTM C404 Type A for Chemical Admixtures for Concrete.
- G. Shrinkage-Reducing Agent: Conforming to ASTM C 494 Type S and suitable for use in saltwater environment. Admixture shall be able to reduce shrinking by a minimum of 75% by 28 days. Shrinkage reducing agent shall be used in all concrete mixes used for the cast in place concrete deck slab.

- H. Microsilica Admixture (if required): Packaged in easily dispersing form.
- I. All chemical admixtures shall be by the same manufacturer.
- J. Water: Clean and potable, free of impurities detrimental to concrete.
- K. Reinforcing Bars: New, deformed billet steel bars conforming to ASTM A 615, Grade 60, either hot dip galvanized after fabrication in accordance with ASTM A767 Class 1 or continuous hot dip galvanized in accordance with ASTM A1094. Bend diameters for steel supplied in accordance with ASTM A767 shall comply with ASTM A767.
- L. Accessories: Reinforcement accessories, consisting of spacers, chairs, ties, and similar items shall be provided as required for spacing, assembling, and supporting reinforcement in place. All accessories shall be dielectric coated steel or approved plastic accessories, conforming to the applicable requirements of the CRSI Standards herein before specified.
- M. Mechanical splices shall meet or exceed ASTM A615 and be hot dip galvanized.
- N. Tie wire for reinforcement shall be 16 gauge or heavier dielectric coated steel or approved plastic accessories, conforming to the applicable requirements of ASTM A-82.
- O. Form Ties and Spreaders: Standard metal form clamp assemble and plastic cone, of type acting as spreaders and leaving no metal within 1 inch of concrete face. Inner tie rod shall be left in concrete when forms are removed. No wire ties or wood spreaders will be permitted. Use 1/2" x 1" C.T. plastic cones for sinkages.
- P. Form Coatings: Non-grain raising and non-staining type that will not leave residual matter on surface of concrete or adversely affect proper bonding of subsequent application of other material applied to concrete surface. Coating containing mineral oils or the nondrying ingredients will not be permitted.
- Q. Concrete Repair Mortar: A fast setting, high-strength, non-shrink repair mortar with saltwater resistance suitable for overhead and vertical repairs, such as SikaRepair SHA with Sika Latex R, Five Star EZ-Cure Repair Mortar, Prospec Vertical Leveling Mortar, or approved equal. Surfaces shall be prepared and Concrete Repair Mortar shall be mixed and applied in accordance with the manufacturer's recommendations.
- R. Bonding agents suitable for concrete and grout. Agent shall be resistant to saltwater environment such as SIKA Armatec 110, EUCO #452 epoxy system or approved equal.

#### S. Bond Breaker:

- 1. Tape for Joints: Adhesive-backed glazed butyl or polyethylene tape. Same width as joint that will adhere to premolded joint material or concrete surface.
- 2. Nonstaining type, providing positive bond prevention.

#### T. Premolded Joint Filler:

- 1. Bituminous Type: ASTM D994 or ASTM D1751.
- 2. Sponge Rubber:
- 3. Neoprene, closed-cell, expanded; ASTM D1056, Type 2C5, with compression deflection, 25 percent deflection (limits), 119 kPa to 168 kPa (17 psi to 24 psi) minimum. Use in joints for potable and non-potable water containment structures.

# U. Pourable Joint Fillers:

- 1. General: Although product is a sealant, it is being specified as a filler to prevent debris accumulation and allow expansion and contraction under shrinkage and thermal loads. It does not need to meet proportional sealant geometry requirements.
- 2. Filler for potable or non-potable water containment structures:
- 3. Multicomponent sealant, self-leveling or nonsag as required for level, sloping, or vertical joints.
- 4. Color: White.

# V. Steel Expansion Joint Dowels:

1. Dowels: ASTM 276, round smooth stainless steel bars, Type 316L, min yield stress 50ksi.

#### 2.02 CONCRETE STRENGTHS AND PROPORTIONS

A. Cast-in-place concrete shall have the following minimum compressive strength at 28 days and shall be proportioned within the following limits:

Class	Minimum Strength at 28 days	Maximum Size of Aggregate	Water Cement Ratio	Minimum Cementitious Material Content	Maximum Cement Replacement	Air Entrainment (air content)
А	5000 psi	3/4"	0.40	660 lbs./CY	Per ACI 318 Except Max slag 25%	5 to 7%

- B. Air-Entrainment: The air content in all concrete shall be maintained as defined above.
- C. Slump: The slump in 5000psi concrete shall be between 3 inches to 5 inches and in accordance with ASTM C 143.
- D. The proportions of aggregate to cement for any concrete shall be such as to produce a mixture which will work readily into the corners and angles of the forms and around reinforcement with the method of placing employed on the work, but without permitting the materials to segregate or excess free water to collect on the surface.
- E. Concrete mix design by supplier shall have been in satisfactory use for a minimum of 2 years.

#### PART 3 EXECUTION

# 3.01 CAST-IN-PLACE CONCRETE GENERAL

#### A. Falsework for Forms:

1. The Contractor shall build and maintain necessary falsework for the forms.

#### B. Construction of Forms:

- 1. Forms shall be constructed of sound material, of the correct shape and dimensions, mortar tight, of sufficient strength, and so braced and tied together that the movement of men, equipment, materials, or placing and vibrating the concrete will not throw them out of line or position. Cold joint forms shall have a roughened profile for adjacent pours.
- 2. During pumping, forms shall be inspected to guarantee that no leaks are present and Contractor shall ensure that concrete, when cured, will result in a composition as specified herein.

#### 3. Embedded Items:

a. Provisions shall be made for pipes, sleeves, anchors, inserts, reglets, anchor slots, nailers, waterstops, and other features. No wood other than necessary nailing blocks shall be embedded in concrete. Complete cooperation shall be extended to suppliers of embedded items in their installation. Secure information for embedded items from other trades as required. All embedded items shall be securely anchored in correct location and alignment prior to placing concrete.

# 4. Openings for Items Passing Through Concrete:

a. Contractor shall establish exact locations, sizes, and other conditions required for openings and attachment of work specified under other sections. Contractor shall be held responsible for proper coordination of all work of this nature in order that there will be no unnecessary cutting and patching of concrete. Any cutting and repairing to concrete, required because of failure to provide for such openings, shall be paid for by the Contractor at no additional expense to The Authority.

# C. Removing Forms and Falsework:

- 1. Wood forms shall not be removed for at least 48 hours after concrete has been placed.
- 2. Forms shall not be removed until the concrete has attained sufficient strength to ensure stability.

# D. Reinforcing Steel:

1. Reinforcing Steel: Shall be placed in accordance with the drawings and approved shop drawings and the applicable requirements of the "Codes and Standards" herein before specified. Install reinforcement accurately and secured against movement, particularly under the weight of workmen and the placement of concrete.

- Reinforcing Steel Supports: Bars shall be supported on approved plastic or dielectric-coated metal chairs or spacers, accurately placed, and securely fastened to forms or steel reinforcement in place. Additional bars shall be supplied, whether specifically shown on the drawings or not, where necessary to securely fasten reinforcement in place. Support legs of accessories in forms without embedding in form surface. Spacing of chairs and accessories shall conform with CRSI's "Recommended Practice for Placing Bar Support". Hooping and stirrups shall be accurately spaced and wired to the reinforcement. No wood will be permitted inside forms. Lifting of welded wire fabric into proper position while concrete is being poured, rather than supporting fabric on chairs, will not be permitted.
- 3. Placing and Tying: All reinforcement shall be set in place, spaced, and rigidly and securely tied or wired with tie wire at all splices and at all crossing points and intersections in the positions shown, or as directed. Rebending of bars on the job to accommodate existing conditions will not be permitted without the written approval of the Engineer. Point ends of wire ties away from forms.
- 4. Spacing: Minimum center to center distance between parallel bars shall be in accordance with the details on the drawings, or, where not shown, the clear spacing shall be 2 times the bar diameter, but in no case less than 1-1/2 inches or 1-1/2 times the maximum sized aggregate.
- 5. Minimum edge distance of 3" unless otherwise noted on the Contract Drawings.
- 6. Splices shall be in accordance with the following:
  - a. Lap Splicing:
    - 1) Maximum 50% of steel spliced occurring within lap length.
    - 2) Top bars shall be 1.4 times values given below.
    - 3) Splice lengths #6 bars and smaller 40 bar diameters
    - 4) Splice lengths #7 bars and greater 47 bar diameters
  - b. Mechanical Splicing:
    - 1) Mechanical butt splices shall be the tension-compression shear screw and wedge coupling sleeve type, with smooth converging sides and cone-pointed hex-head screws, to develop a strength in the bar equal to  $1.25F_v$
    - 2) Mechanical lap splices shall be the shear screw and double wedge coupling sleeve type, with converging sides and conepointed hex-head screws opposite the wedges.
- 7. Protective Concrete Covering: Except where shown otherwise on drawings, the minimum concrete coverage for steel reinforcement shall conform with the applicable revisions of the "Codes and Standards" herein before specified.
- 8. Reinforcement Around Openings: On each side and above and below pipe or opening, place an equivalent area of steel bars to replace steel bars cut for

- opening. Extend steel reinforcing a standard lap length beyond opening at each end.
- 9. Bar Cutting: Reinforcement bars shall not be cut in the field, unless permitted by Engineer.
- 10. Welding:\_Welding of reinforcement is not permitted. Coating damaged incurred during shipment, handling and placing of zinc-coated (galvanized) reinforcing bars must be repaired in accordance with ASTM A780, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings. Damaged areas must not exceed 2 percent of the surface area in each linear foot of each bar or bar must not be used.

# E. Mixing of Concrete:

- All concrete shall be ready-mixed concrete and shall be mixed and delivered in accordance with the "Specification for Ready-Mixed Concrete", ASTM C-94. The batch plant of the concrete producer shall be certified for compliance with the standards established by the National Ready-Mixed Concrete Association.
- 2. In the event concrete is mixed at a central batching plant, the delivery shall be arranged so that intervals between batches are kept to a minimum, and in any event, not more than thirty (30) minutes. Trucks shall be in first class condition and kept in constant rotation during delivery.
- 3. Concrete shall be placed within 90 minutes after cement has been mixed with aggregate or 45 minutes after addition of water and admixtures.
- 4. No admixtures, except those mentioned in paragraph 2.1 shall be used. Calcium chloride will not be permitted.
- 5. Truck delivery slips of all concrete delivered to the job shall be presented to the Engineer and shall indicate the quantity and quality of concrete, additives, date and time of batching and delivery, and the location of placement. No concrete shall be placed until the Engineer has reviewed and approved the delivery slip for that placement.

# F. Cold Weather Requirements:

- Concrete shall not be mixed or placed when the temperature is below 40 degrees F., or when conditions indicate that the temperature will fall below 40 degrees F. within 72 hours unless precautions are taken to protect the concrete.
- 2. Concrete temperature shall be maintained, when deposited, at not less than 60 degrees F. Reinforcement, forms, and ground which concrete will contact must be completely free of frost.
- 3. Concrete and formwork must be kept at a temperature of not less than 50 degrees F. for not less than 96 hours after placing.
- 4. Calcium chloride shall not be used.
- 5. Contractor shall provide heating and/or insulation to formwork as required to comply with these minimum temperature requirements.

# G. Hot Weather Requirements:

- 1. The maximum temperature of the concrete, when deposited, shall be 85 degrees F. If the weather causes the placing temperature to exceed 85 degrees F., the mix shall be cooled by appropriate methods, if approved by the Engineer.
- 2. No concrete shall be deposited when the air temperature is greater than 90 degrees F.

# H. Conveying and Placing Concrete:

- 1. Notification: Contractor shall notify Owner's Representative at least 48 hours in advance of any placement of concrete.
- 2. Form Preparation: Before placing concrete, forms shall be thoroughly inspected. All chips, dirt, etc., shall be removed, all temporary bracing and cleats taken out, all openings for pipes, etc., properly boxed, all forms properly secured in their correct position and made tight, all reinforcement, anchors, and embedded items secured in their proper places. Concrete which may be on the forms or reinforcement, and which is set and dry, shall be cleaned off, and the forms and steel washed off before proceeding. Remove all foreign matter from forms and excavations.
- 3. Excess Water: Water shall be removed from place of deposit before concrete is placed unless otherwise permitted by the Engineer. Any flow of water into an excavation shall be diverted through proper side drains into a sump or shall be removed by other approved methods which will avoid washing away the freshly deposited concrete.
- 4. Soil on which concrete will be poured shall be thoroughly wetted (except in freezing weather).
- 5. Existing Concrete Preparation: All existing concrete that is to have fresh concrete placed against shall be surfaced roughened to a minimum of ¼" amplitude within 2 inches of the edges and shall be coated with approved bonding agent.
- 6. Anchors and Embedded Items: Anchors, bolts, sleeves, inserts, wood blocking, and any other items to be embedded in concrete shall be accurately secured in position before the concrete is placed. Aluminum shall not be embedded in concrete.

# 7. Handling and Depositing of Concrete:

- a. Before any concrete is placed, the Contractor shall notify all whose work is in any way connected with or influenced by the concrete work and give them reasonable time to complete all portions of their work that must be completed before concrete is deposited.
- b. Immediately before concrete is placed, the Contractor shall inspect all forms to be sure that they are in proper position, sufficiently rigid, thoroughly clean, properly oiled and free from foreign materials and that all reinforcement is in proper position.

- c. Concreting, once started, shall be carried on as a continuous operation until the section of approved size and shape is completed. Cold joints will not be accepted.
- d. Concrete shall be conveyed as rapidly as practicable from the mixer to the place of final deposit by methods, which prevent the separation or loss of ingredients. It shall be deposited, as nearly as practicable, in its final position to avoid rehandling or flowing.
- e. Concrete shall not be dropped freely where reinforcement will cause segregation, nor shall it be dropped freely more than six (6) feet. Concrete shall be deposited to maintain a plastic surface approximately horizontal.
- f. Concrete that has partially hardened shall not be deposited in the work.

# 8. Pumping:

- a. Concrete may be placed by pumping if first approved in writing by the Engineer for the location proposed.
- b. Equipment for pumping shall be of such size and design as to ensure a practically continuous flow of concrete at the delivery end without separation of materials.
- c. The concrete mix shall be designed to the same requirements as herein before specified and may be richer in lubricating components to allow proper pumping.
- d. Concrete shall not be pumped through aluminum pipes.
- e. All pumping operations must have full-time inspection by a recognized testing laboratory approved by the Engineer and paid for by the Contractor. The cost of this fill-time inspection shall be included in the Contractor's bid proposal if the option of pumping is elected.

# 9. Vibrating and Compacting:

- a. All concrete shall be thoroughly consolidated and compacted by suitable means during the operation of placing, and shall be thoroughly worked around reinforcement, embedded items, and into the corners of the forms. All concrete against forms shall be thoroughly spaded. Internal vibrators shall be used under experienced supervision and shall be kept out of contact with reinforcement and wood forms. Vibrators shall not be used in a manner that forces mortar between individual form members.
- b. Vibrators shall be flexible electric type or approved compressed air type, adequately powered and capable of transmitting to the concrete not less than seven thousand (7,000) impulses per minute. Vibration shall be sufficiently intense to cause the concrete to flow or settle readily into place without separation of the ingredients. A

sufficient number of vibrators shall be employed so that complete compaction is secured throughout the entire volume of each layer of concrete. At least one (1) vibrator shall be kept in readiness as a spare for emergency use. Vibrators shall be such that the concrete becomes uniformly plastic with their use.

- c. Vibration shall be close to the forms but shall not be continued at one spot to the extent that large areas of grout are formed or the heavier aggregates are caused to settle. Care shall be taken not disturb concrete which has its initial set. Vibrations shall not be used to walk concrete from one side to another within given form. Walking concrete will cause separation of the mix.
- d. Where conditions make compacting difficult, or where the reinforcement is congested, batches of mortar containing the same proportions of cement to sand as used in the concrete shall first be deposited in the forms, to a depth of at least on inch.
- e. The responsibility for providing fully filled out, smooth, clean, and properly aligned surfaces free from objectionable pockets shall rest entirely with the Contractor.

#### I. Construction Joints:

1. Construction joints shall be located as shown on the Contract Drawings or where approved in joint location submittal. Horizontal construction and contraction joints shall be spaced at a maximum of 30 feet apart, unless shown or approved otherwise. If, for any reason, the Contractor feels a change is necessary, he shall prepare a placing plan and submit it to the Engineer for approval. Where a joint is to be made, the surface of the concrete shall be sandblasted or thoroughly picked, thoroughly cleaned, and all laitance removed. In addition to the foregoing, joints shall be thoroughly wetted, but not saturated, and slushed with a thin coat of grout immediately before the placing of new concrete. Approved keys shall be used at all joints, unless detailed otherwise. Forms shall be retightened before placing of concrete is continued. There shall be an interval of at least 48 hours between adjacent pours.

# J. Expansion Joints:

1. Expansion joints shall be located as shown on Contract Drawings. Unless otherwise designed the joint shall include a joint filler, a bond breaker, and joint sealant, and be installed as indicated on Contract Drawings.

# 2. Surface Preparation:

- a. Use wire brush or motorized device to mechanically roughen and thoroughly clean concrete surfaces on each side of joint from plastic waterstop to top of joint.
- b. Use dry, high-pressure air to remove dust and foreign material, and dry joint.
- c. Prime surfaces as required before placing joint filler.

d. Avoid damage to waterstop.

#### 3. Installation:

# a. Premolded Joint Filler:

- 1) Sufficient in width to completely fill joint space where shown.
- 2) Install per manufacturer's written instructions.
- 3) If waterstop is in joint, cut premolded joint filler to butt tightly against waterstop and concrete face.
- 4) Precut premolded joint filler to required depth at locations where joint filler or sealant is to be applied.
- 5) Form cavities for joint filler with either precut, premolded joint filler, or smooth removable accurately shaped material. Entire joint above waterstop, in slabs, shall be formed and removed so that entire space down to waterstop can be filled with the pourable joint filler.
- 6) Vibrate concrete thoroughly along joint form to produce dense, smooth surface.

# b. Bituminous Type Premolded Joint Filler:

- 1) Drive nails approximately 1 foot 6 inches on center through filler, prior to installing, to provide anchorage embedment into concrete during concrete placement.
- 2) Secure premolded joint filler in forms before concrete is placed.
- 3) Sponge Rubber Joint Filler: Install per manufacturer's written instructions.

# c. Pourable Joint Filler:

- 1) Install in accordance with the manufacturer's written instructions, except as specified below:
- 2) Apply primer prior to pouring joint filler.
- 3) Fill entire joint above the waterstop with joint filler as shown.
- 4) Use masking tape on top of slabs at sides of joints; clean spillage. Remove masking tape afterwards.
- 5) Sealant products used as fillers need not meet sealant geometry parameters. Do not use backing rods.

# d. Steel Expansion Joint Dowels:

 Install coated and lubricated bars parallel to wall or slab surface and in true horizontal position perpendicular to joint in both plan and section view, so as to permit joint to expand or contract without bending dowels.

- 2) Secure dowels tightly in forms with rigid ties.
- 3) Install steel reinforcement in concrete as shown.

# K. Patching:

- Immediately after stripping forms, patch minor defects, form-tie holes, honeycombed areas, etc., before concrete is thoroughly dry. Repair gravel pockets by cutting out to solid surface, form key, and thoroughly wet before placing patching mortar consisting of 1 part cement to 2 parts fine sand; compact into place and neatly finish. Honeycombed areas or gravel pockets which, in the Engineer's opinion are too large and unsatisfactory for mortar patching as described above, shall be cut out to solid surface, keyed, and packed solid with matching concrete to produce firm bond and surface.
- 2. The Contractor shall do the entire cutting as required by himself or other trades. All such work shall be of the minimum size required. No excessive cutting will be permitted; nor shall any structural members or reinforcement be cut.
- 3. The Contractor shall do all patching after work by other trades has been installed, where required, using Portland Cement Mortar 1:2 sand mix.

# L. Protection and Curing:

- 1. Protect concrete from injurious action of the elements and defacement of any nature during construction operations.
- 2. Protect fresh concrete from drying winds, rain, damage, or spoiling. Curing paper shall be lapped 4 inches minimum at joints and sealed with waterproof tape.
- 3. Keep concrete in a thoroughly moist condition from the time it is placed until it has cured, for at least seven (7) days.
- 4. Carefully protect exposed concrete corners from damage.
- 5. Allow no slabs to become dry at any time until curing operations are complete. In general, slabs shall be cured with non-staining curing paper, hosing or fog spray; vertical surfaces shall be cured with wetted Burlene or fog spray unless otherwise approved.

# M. Concrete Finishes:

1. Unexposed Surfaces: All unexposed surfaces shall have form finish at the Contractor's option.

# 2. Wearing Surface Finish

a. The wear surface shall receive a monolithic steel trowel finish. Surfaces shall be finished with a screed, float, or steel trowel. Trowel shall be vigorously used at an angle under pressure by the finisher until troweling gives evidence of shine or gloss as required to make a smooth, hard, dense, impervious surface, free of defects. Finishers shall work from kneeboards laid flat upon the surface. Mechanical troweling machines may be used if the desired finish and level

- tolerances can be obtained by their use, but finishing shall be by hand troweling.
- b. Where directed, finish surfaces by scoring in parallel lines with a fine hair stable broom, perpendicular to the direction of traffic or as indicated on the drawings.
- c. Stamped concrete finish to 2 foot wide margin of cast in place concrete slab as shown on the drawings.

# 3. Exposed Surfaces:

- a. Surfaces exposed to view shall be finished. Within 48 hours after the forms have been removed and form ties cut back from the face of the concrete, all voids and cavities shall be filled with a stiff mortar of the same composition and air-entrainment as the mortar in the original concrete mix. The same brand and color of cement, and the same kind and color of aggregate as was used in the original concrete mix shall be used in this mortar. The mortar for filling shall have been mixed and let set for 30 minutes and then remixed before placing in the work. The surface film of all such pointed surfaces shall be carefully removed before setting of the mortar occurs.
- b. If the Engineer determines these surfaces as prepared do not present a uniformly smooth, clean surface of even texture and appearance, the surface shall be treated and rubbed to obtain a satisfactory finish. The Engineer shall be the sole judge of the amount of rubbing which will be required.
- c. If rubbing is required, the rubbing will start within 48 hours of notification that the rubbing is required; the surface should be wetted with clean water and rubbed with a No. 16 carborundum brick or other abrasive of equal quality until even and smooth and of uniform appearance, without applying any cement or other coating. If additional finishing is necessary, it shall be obtained by a thorough rubbing with a No. 10 carborundum brick or other abrasive of equal quality. Subject to approval by the Engineer, rubbing may be performed by use of satisfactory power equipment and tools, providing the operational procedures shall be the same as those outlined above for hand rubbing.
- d. Rubbing will be kept to the minimum found necessary to produce smooth, even surfaces of uniform appearance. Rubbing will not be required to fill very small surface air bubble holes.
- e. Patches required for form ties, if carefully and properly done, may not necessitate rubbing. However, if the work is done in such a way that the patches are conspicuous; the entire exposed face on which they occur shall be rubbed.
- f. After the final rubbing is completed, and the mortar has set up, the surface shall be thoroughly drenched and kept wet with clean water for a period of five days, unless otherwise directed.

- g. No rubbing will be permitted when the air temperature is below 40 °F.
- h. Any formed surfaces not exposed to view, including the underside of concrete decking, shall be finished. Immediately after forms have been removed and form ties cut back from the face of the concrete, all voids and cavities shall be fixed with a stiff mortar of the same composition and air-entrainment as the mortar in the original concrete mix. The mortar for filling shall have been mixed and let set for 30 minutes and then remixed before placing in the work. In case the operation of filling is delayed, the surface of the concrete shall be thoroughly cleaned and washed with water, if necessary, before the mortar is applied.

#### 4. Addition of Material:

a. The addition of cement, sand, water, or mortar to any surface while finishing concrete is strictly prohibited.

# N. Backfill Against Structures:

- 1. Do not backfill against walls until concrete has obtained specified 28-day compressive strength.
- 2. Unless otherwise permitted, place backfill simultaneously on both sides of structure, where such fill is required, to prevent differential pressures.

# O. Defective Work:

- 1. The following concrete work shall be considered defective and may be ordered by the Engineer to be removed and replaced at Contractor's expense:
  - a. Incorrectly formed.
  - b. Not plumb or level.
  - c. Not specified strength.
  - d. Containing rock pockets, voids, honeycomb, or cold joints.
  - e. Containing wood or foreign matter.
  - f. Otherwise not in accordance with the intent of the Drawings and Specifications.

# P. Concrete Repair:

- 1. Inject cracks that leak with crack repair epoxy.
- 2. Repair defective areas of concrete.
- 3. Repair concrete surfaces using specified materials. Select system, submit for review, and obtain approval from Engineer prior to use.
- 4. Develop repair techniques with material manufacturer on surface that will not be visible in final construction prior to starting actual repair work. Obtain approval from Engineer.

- 5. Obtain quantities of repair material and manufacturer's detailed instructions for use to provide repair with finish to match adjacent surface or apply sufficient repair material adjacent to repair to blend finish appearance.
- 6. Repair of concrete shall provide structurally sound surface finish, uniform in appearance or upgrade finish by other means until acceptable to Engineer.
- Q. Remove metal objects not intended to be exposed in as-built condition of structure including wire, nails, and bolts, by chipping back concrete to depth of 1 inch and then cutting or removing metal object.

# 3.02 PRECAST CONCRETE

- A. Precast Concrete shall comply with the requirements of 3.01 CAST IN PLACE CONCRETE and the following:
- B. Contractor shall submit proposed lifting and handling means and methods to Engineer for approval prior to commencing work.
- C. If precast concrete is to be lifted or moved prior to 7 day cylinder strength test, additional cylinders shall be taken to prove required strength of concrete. Minimum strength shall be twice calculated stress on concrete or 1500psi, whichever is the greater.
- D. Contractor shall provide suitable temporary supports for the precast concrete adequately designed to take all dead and live construction loads.

#### PART 4 MEASUREMENT AND PAYMENT

#### 4.01 MEASUREMENT AND PAYMENT

# A. Method of Measurement

- Measurement of REPLACEMENT PRECAST CONCRETE PANEL shall be measured by the Contract Unit Price EACH and shall be the number of replacement concrete panels directed by the Owner. No measurement or payment will be made for panels damaged by the Contractor as a result of mishandling or poor storage.
  - 2. Measurement for BACKFLOW PIT shall be made by the Contract Unit Price LUMP SUM, complete in-place.
  - Measurement of CAST-IN-PLACE CONCRETE SLAB shall be measured by the Contract Unit Price LUMP SUM once for the contract.
  - 4. For all other concrete work, no separate measurement or payment will be made for the work in this Section. Measurement and Payment for these items shall be included within the work it is associated with.

# B. Method of Payment

1. Payment shall be made for REPLACEMENT PRECAST CONCRETE PANEL at the Contract Unit Price EACH. This price and payment shall constitute full compensation for all labor, equipment, materials, preparation, testing,

transportation, survey, and supervision for the satisfactory supply and installation of new concrete panel including, but not limited to, disposal of damaged panel, compaction, falsework, temporary supports, forming, finishing, dowels, reinforcing steel, epoxy adhesives, inserts, surface preparation, curing, attachments, lifting inserts, disposal items not otherwise indicated for separate payment and any incidentals necessary to complete the work specified herein and as shown on the Contract Drawings.

- 2. Payment for BACKFLOW PIT shall be for the Contract Unit Price LUMP SUM. This price and payment shall constitute full compensation for all labor, equipment, materials, preparation, design, testing, transportation, survey, and supervision for the satisfactory supply and installation of the backflow pit, complete in place, including demolition, excavation, coring though concrete abutment, dewatering, geotextiles, backfill and compaction, crushed stone, gravel borrow, concrete thrust blocks, bedding and surround, pipes, precast concrete, gate valves, frames, castings, sub base, bituminous pavement, disposal of excess material and any other incidentals necessary to complete the work specified herein and as shown on the Contract Documents.
- 3. Payment shall be made for CAST-IN-PLACE CONCRETE SLAB at the Contract Unit Price LUMP SUM, complete in place. This price and payment shall constitute full compensation for the additional costs for all labor, equipment, materials, preparation, testing, transportation, survey, and supervision for the satisfactory supply and installation of new cast in place concrete slab including, but not limited to compaction, metal decking, falsework, timber framing at electrical panel conduits, temporary supports, forming, finishing including stamped finish, dowels, reinforcing steel, anchors, dowels, epoxy adhesives, inserts, steel fabrications, joint formers and fillers, sealants, surface preparation, curing, attachments, disposal of surplus materials, any items not otherwise indicated for separate payment and any incidentals necessary to complete the work specified herein and as shown on the Contract Drawings.

# C. Payment Items

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
03 31 30-01	Replacement Precast Concrete Panel	EA
03 31 30-02	Backflow Pit	LS
03 31 30-03	Cast-in-place Concrete Slab	LS

#### **SECTION 05 50 00**

# **METAL FABRICATIONS**

#### **PART 1 GENERAL**

#### 1.01 DESCRIPTION OF WORK

- A. Work under this Section, without limiting the generality thereof, consists of manufacturing or shop-fabricating metal elements itemized below and installation of all materials, equipment, labor, transportation facilities, and all operations and adjustments required for the complete and operating installation as indicated on the Drawings, stipulated in the Specifications and as reasonably implied by either or both. This includes, but is not limited to the following:
  - 1. Bearing Plates
  - 2. Steel Brackets, Straps and Connectors
  - Steel Hardware
  - 4. Miscellaneous fabricated elements not otherwise identified
- B. Should drawings not agree within themselves or the specifications, the greater quantity, or superior quality of work or materials shall be included.

## 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications.
  - 1. Concrete under REINFORCED CONCRETE, SECTION 03 31 30
  - 2. Metals under MISCELLANEOUS METALS, SECTION 05 50 13
  - 3. Coatings under MARINE COATINGS, SECTION 09 96 26
  - 4. Aluminum under STRUCTURAL ALUMINUM, SECTION 35 51 20
  - 5. Steel Piles under STEEL PIPE PILES, SECTION 31 62 23
  - 6. Concrete Floats under CONCRETE FLOATING DOCKS, SECTION 35 51 13.01
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 QUALITY ASSURANCE

- A Except as noted, work shall conform to the following codes and standards:
  - 1. American Society for Testing and Materials (ASTM), latest edition.
  - 2. American Institute of Steel Construction (AISC) Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings, latest editions.
  - 3. American Welding Society (AWS).

# 1.04 SUBMITTALS

- A. Submit for approval prior to fabrication all information necessary for the fabrication of the component parts. Indicate size and weight of members, type and location of shop and field connections, and the type, size, and extent of all welds and welding sequences. Use American Welding Society welding symbols. Approval of shop drawings will be for size and arrangement of principal and auxiliary members and strength of connections. Any errors in dimensions shown on shop drawing shall be the responsibility of the Contractor.
- B. The Contractor shall use only certified welders and the shielded arc process for all welding performed in connection with the work of this Section. Each welder shall be certified for the particular work, prior to commencing the work which must be accomplished.
- C. Upon completion of this portion of the work, and as a condition of its acceptance, the Contractor shall deliver to the Engineer a letter signed by an official of the metal fabricating firm or firms certifying that all fabricated metal has been fabricated in complete accordance with this Section of these specifications.
- D. Name and address of Independent Testing Laboratory for approval by the Engineer.

# 1.05 PRODUCT HANDLING

A. All materials shall be delivered, stored, and handled with care to prevent damage to any material or material coating. Material damaged or with damaged coating will be rejected and replaced at no additional cost to the Owner.

## **PART 2 PRODUCTS**

# 2.01 MATERIALS

- A. All Structural steel, including rolled shapes, angles and plates shall conform to ASTM A572 Gr. 50 unless otherwise noted.
- B. All structural steel piping shall conform to ASTM A252, Grade 3 unless otherwise noted.
- C. All hollow structural tube sections shall conform to ASTM A-500 Grade B, unless otherwise noted.
- D. All steel items under this section shall be galvanized unless noted otherwise on the Contract Drawings. Galvanizing shall be by the hot dip method according to ASTM Specifications A-123 and A-153.
- E. Steel Pile Guides are further specified under CONCRETE FLOATING DOCKS, SECTION 35 51 13.01
- F. Aluminum fabrications for the gangway and associated elements shall be as specified in STRUCTURAL ALUMINUM, SECTION 35 51 20

#### 2.02 WELD ELECTRODES

A. Weld rod shall conform to AWS E70XX grade. (STEEL)

#### PART 3 EXECUTION

#### 3.01 FABRICATION

- A. Fabricate products in a fully-equipped facility capable of producing a high grade of metal fabrication work. All work shall be straight and true, and free from warpage and other defects. Joints, covers, copes, and miters shall be accurately and neatly cut, machined, field, and fitted.
- B. Carry out bolting and welding in accordance with latest approved methods, with due consideration for strength and appearance of finished product. All welding shall be done by certified welders.
- C. All steel will be free from imperfections, dirt, loose scale, paint, oil, or other foreign substances.
- D. All welds shall be made watertight.
- E. All material shall be fabricated to within + or 1/8 inch of their theoretical dimensions as shown on the drawings.
- F. Holes for bolts shall be located as shown on the drawings and shall be drilled 1/8" indiameter larger than the galvanized bolt.
- G. All fabrication under this section shall be hot dipped galvanized in accordance with ASTM Specifications A-123 and A-153, unless noted otherwise on the Contract Documents
- H. Prior to fabricating any structural steel members, contractor shall confirm the exact field measurements of each unit to account for the subtle changes of individual unit's field condition.

# 3.02 INSTALLATION

- A. Store materials on skids, not on ground, in such a fashion as to prevent bending, twisting, or similar damage. Do not dump steel off truck.
- B. Clean installed work from weld spatter, dirt and other foreign materials. Protect installed work as required from damage by subsequent building operations.
- C. Joints are to be square, tight, and well-fastened with all members assembled in accordance with the Contract Drawings.

# 3.03 DEFECTIVE WORK

A. Any parts damaged or improperly fabricated shall be removed and replaced or corrected as directed by the Engineer at no additional cost to the Owner.

# PART 4 METHOD OF MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

**END OF SECTION** 

# SECTION 05 50 13 MISCELLANEOUS METALS

#### **PART 1 GENERAL**

## 1.01 SCOPE OF WORK

- A. Work under this Section, without limiting the generality thereof, consists of manufacturing or shop-fabricating and installation metal elements itemized below including all materials, equipment, labor, transportation facilities, and all operations and adjustments required for the complete and operating installation as indicated on the Drawings, stipulated in the Specifications and as reasonably implied by either or both. This includes, but is not limited to the following:
  - 1. Miscellaneous angles and brackets
  - 2. Structural bolts, washers and nuts
  - 3. Machine bolts, washers and nuts
  - 4. Anchor and expansion bolts
  - 5. Stainless Steel (SS) pins, plates, connections and fasteners
  - 6. Miscellaneous hardware not otherwise identified
- B. Should drawings not agree within themselves or the specifications, the greater quantity, or superior quality of work or materials shall be included.

# 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - Concrete float under CONCRETE FLOATING DOCKS, SECTION 35 51 13.01
  - 2. Timber under HEAVY TIMBER CONSTRUCTION, SECTION 06 13 00
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 QUALITY ASSURANCE

- A. Except as noted elsewhere, work shall conform to the following codes and standards:
  - 1. American Society for Testing and Materials (ASTM), latest edition.
  - 2. American Welding Society (AWS)
  - 3. American Institute of Steel Construction (AISC), latest edition.

4. The Commonwealth of Massachusetts, Department of Public Works "Standard Specifications for Highways and Bridges" (latest edition). (MHD)

# 1.04 SUBMITTALS

- A. Submit for approval prior to fabrication all information necessary for the fabrication of the component parts. Indicate size and weight of members, type and location of shop and field connections, and the type, size, and extent of all welds and welding sequences. Use American Welding Society welding symbols. Approval of shop drawings will be for size and arrangement of principal and auxiliary members and strength of connections. Any errors in dimensions shown on shop drawing shall be the responsibility of the Contractor.
- B. Certificate of compliance with applicable ASTM specifications for all galvanized items shall be submitted to the Engineer with all materials delivered to the fabricator or site.
- C. Manufacturer's literature, specifications, and certification of compliance with applicable ASTM specifications for all fasteners, wire rope, chains, shackles, expansion bolts, and other connection items identified within the contract drawings.
- D. The Contractor shall use only certified welders and the shielded arc process for all welding performed in connection with the work of this Section. Each welder shall be certified for the particular work, prior to commencing the work which must be accomplished.
- E. Upon completion of this portion of the work, and as a condition of its acceptance, the Contractor shall deliver to the Engineer a letter signed by an official of the metal fabricating firm or firms certifying that all fabricated metal has been fabricated in complete accordance with this Section of these specifications.
- F. Name and address of Independent Testing Laboratory for approval by Engineer.
- G. List of all other hardware with quantities and material specifications.

## 1.05 PRODUCT HANDLING

A. All materials shall be delivered, stored, and handled with care to prevent damage to any material or material coating. Material damaged or with damaged coating will be rejected and replaced at no additional cost to The Town.

# **PART 2 PRODUCTS**

## 2.01 MATERIALS

- A. All structural steel, including rolled shapes, angles and plates shall conform to ASTM A572 Gr. 50 unless otherwise noted.
- B. All hollow structural tube sections shall conform to ASTM A-500 Grade B, unless otherwise noted.
- C. All steel items under this section shall be galvanized unless noted otherwise on the Contract Documents. Galvanizing shall be by the hot dip method according to ASTM Specifications A-123 and A-153.

- D. Stainless Steel shall be Series 300, Type 316.
- E. Steel Decking shall conform to ASTM A653 SS GR50 Min.
- F. All bolts for timber and/or composite materials shall conform to ASTM A307, Gr. A for Mild Steel Bolts unless otherwise noted complete with compatible nuts and dock washers and shall be Hot Dipped Galvanized according to ASTM Specifications A-123 and A-153.
- G. All bolts for steel connections shall conform to ASTM F3125, Grade A325 for Steel Bolts with manufacturer markings that indicate as such unless otherwise noted.
- H. Threaded rod anchors shall conform to F1554 Grade 55 unless otherwise noted.
- I. Galvanizing shall be by the hot dip method according to ASTM Specifications A-123 and A-153.
- J. Welding rods shall conform to AWS E70XX grade. Sizes shall be as indicated on the drawings.
- K. Anchor bolts shall be as indicated on drawings.

## **PART 3 EXECUTION**

#### 3.01 FABRICATION

- A. Fabrication shall conform to AISC Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings.
- B. Workmanship shall be equal to standard commercial practice.
- C. All materials shall be clean and straight. Each assembly shall be accurately fabricated to the lines and dimensions called for and shall be free from undue twists, bends, warping, distortion, and other irregularities.
- D. Carry out bolting and welding in accordance with latest approved methods, with due consideration for strength and appearance of finished product. All welding shall be done by certified welders.
- E. All steel shall be free from imperfections, dirt, loose scale, paint, oil, or other foreign substances.
- F. Prior to fabricating any structural steel members, contractor shall confirm the exact field measurements of each unit to account for the subtle changes of individual unit's field condition.

## 3.02 INSTALLATION

- A. Installation shall conform to AISC Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings.
- B. Parts covered by this specification shall be installed in the work as shown on the drawings.
- C. No cutting or burning of steel shall be done to install fasteners without approval of the Engineer.

- D. All epoxy anchors shall be installed fully in accordance with manufacturer's recommendations including hole drilling, cleaning and anchor installation.
- E. Store materials on skids, not on ground, in such a fashion as to prevent bending, twisting, or similar damage. Do not dump steel off truck.
- F. Clean installed work from weld spatter, dirt and other foreign materials. Protect installed work as required from damage by subsequent building operations.
- G. Joints are to be square, tight, and well-fastened with all members assembled in accordance with the Contract Drawings.

# 3.03 HOT DIP GALVANIZING

- A. Galvanizing shall be by the hot dip method according to ASTM Specifications A-123 and A-153.
- B. Repair of hot dip galvanizing shall be using zinc rich paint. Zinc rich paint shall be an organic zinc-rich coating containing 95% metallic zinc, by weight in the dried film.

# 3.04 DEFECTIVE WORK

- A. The following shall be grounds for rejection and shall be removed and replaced or corrected as directed by the Engineer at no additional cost to The Town:
  - 1. Any damaged or improperly fabricated parts
  - 2. Any parts improperly installed in the work.
  - 3. Any items found not to have the proper coating.
  - 4. Otherwise not according to Contract Documents.

#### PART 4 MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for the work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

\*\*\* END OF SECTION \*\*\*

#### **SECTION 06 13 00**

# **HEAVY TIMBER CONSTRUCTION**

#### **PART 1 GENERAL**

# 1.01 DESCRIPTION OF WORK

- A. Work under this Section, without limiting the generality thereof, consists of the furnishing and installation of all materials, equipment, labor, transportation facilities, and all operations and adjustments required for the complete and operating installation as indicated on the Drawings, stipulated in the Specifications and as reasonably implied by either or both. Scope of work includes, but is not necessarily limited to, the following:
  - 1. Replacement of timber pile caps including removing and reinstalling existing precast concrete deck panels
  - 2. Repair (Sistering) of timber pile caps
  - 3. Repair of select timber piles and pile hardware
  - 4. Repair select wave fence slats and wales and replace associated hardware
  - 5. Replace select bracing members and associated hardware
  - 6. Replace select hardware for existing timber members
  - 7. Timber framing around conduits at electrical panel.
- B. Should drawings not agree within themselves or the specifications, the greater quantity, or superior quality of work or materials shall be included.

## 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS:

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Timber Fasteners under MISCELLANEOUS METALS, SECTION 05 50 13
  - 2. Timber Treatment under TIMBER TREATMENT, SECTION 06 13 00.01.
  - 3. Metals under METAL FABRICATIONS, SECTION 05 50 00
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 QUALITY ASSURANCE

- A. Except as noted all work shall conform to the latest editions of the following codes, specifications and standards:
  - 1. Southern Pine Inspection Bureau (SPIB)
  - 2. West Coast Lumber Inspection Bureau (WCLIB)

- 3. Western Wood Products Association (WWPA)
- 4. National Forest Products Association (NFPA)
- 5. American Society for Testing and Materials (ASTM)
- 6. Commonwealth of Massachusetts State Building Code (CMSBC)
- 7. American Institute of Timber Construction (AITC)

# 1.04 SUBMITTALS

- A. Certification of timber species.
- B. AWPA quality certification on all treated timber
- C. Material list with treatment, sizes, and quantities

# 1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. All timber shall be stored in stacks such that there is air space beneath the material and situated to prevent the timber from being exposed to standing water.
- B. The material shall be stored on site in an area which will be designated by the Owner.
- C. Timber shall be handled in an approved manner such that the material will not be damaged.

#### **PART 2 PRODUCTS**

# 2.01 MATERIALS

- A. Unless otherwise specified on the Contract Drawings, all timber to be used shall be No. 1 Southern Pine as graded by SPIB and with design values per NFPA National Design Specification or the equivalent for Douglas Fir as graded by WCLIB and WWPA.
- B. All timber shall be new and supplied with nominal dimensions unless otherwise noted.
- C. All timber fasteners shall meet ASTM A-307 and shall be hot dipped galvanized in accordance with ASTM A-123 and A-153
- D. All timber shall be treated in conformance with TIMBER TREATMENT, SECTION 06 13 00.01.

## PART 3 EXECUTION

# 3.01 PREPARATION

A. Prior to installation all demolition affecting the new work shall be completed. Demolition shall be phased and/or temporary support shall be provided as necessary.

#### 3.02 INSTALLATION

- A. Joints are to be square, tight and well-fastened with all members assembled in accordance with the Contract Drawings.
- B. Holes for bolts shall be drilled the same size as the bolt before galvanizing. Holes shall be swabbed with 2 coats of sealing compound as specified herein before installing the bolts.
- C. Bolts shall be tightened to provide a solid connection. No more than 1 washer shall be installed under the bolt head or nut. Bolt threads shall project no more than one bolt diameter beyond the nut.
- D. All timber shall be cut and fit in such a manner as to have full bearing over the entire contact surface.
- E. All cut faces of timber shall be coated with a minimum of 2 coats of sealing compound as specified herein before installation. This includes modified timber wale.

# PART 4 MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASUREMENT

- A. Measurement of TIMBER PILE POST REPAIR shall be by unit EACH as the actual number of Pile Post Repairs installed complete in place in conformance with the contract documents. Hardware required to complete the repair will not be measured separately.
- B. Measurement of TIMBER PILE REPLACEMENT shall be by unit EACH as the actual number of new Timber Piles installed complete in place in conformance with the contract documents. Hardware required to complete the repair will not be measured separately.
- C. Measurement of TIMBER PILE CAP REPAIR (sistering) shall be by the unit BOARD FOOT MEASURE (BFM). Measurement shall be made by the actual length installed complete in-place along the centerline of the new piece of timber and shall be calculated based on nominal timber dimensions. Cut offs and excess length will not be measured for payment. Hardware required to complete the repair will not be measured separately.
- D. Measurement of TIMBER PILE CAP REPLACEMENT shall be by the unit BOARD FOOT MEASURE (BFM). Measurement shall be made by the actual length installed complete in-place along the centerline of the new piece of timber and shall be calculated based on nominal timber dimensions. Cut offs and excess length will not be measured for payment. Hardware required to complete the repair will not be measured separately.
- E. Measurement of MISCELLANEOUS TIMBER REPAIRS (including horizontal or cross bracing, wales and slats) shall be by the unit BOARD FOOT MEASURE (BFM Measurement shall be made by the actual length installed complete in-place along the centerline of the new piece of timber and shall be calculated based on nominal timber dimensions. Cut offs and excess length will not be measured for

- payment. Hardware required to complete the repair will not be measured separately.
- F. Measurement of BATTER PILE HARDWARE REPAIR shall be by the unit EACH as the actual number of existing Batter Piles reconnected to the existing pier complete in place in conformance with the contract documents. A complete batter pile hardware repair shall include timber blocking if required, steel brackets and all fasteners required at each repair location.
- G. Measurement of HARDWARE REPAIR shall be by the unit EACH as the actual number of hardware repairs performed complete in place in conformance with the contract documents. Hardware repairs will only be measured where existing timbers are to remain. No separate measurement will be made for hardware required to attach new or replacement timber members. One complete hardware repair will be defined as the connection between two primary timber members i.e. bracing to pile, wale to pile, etc. A complete hardware repair shall include all steel brackets and all fasteners required at each repair location.

# 3.03 METHOD OF PAYMENT

- A. Payment for TIMBER PILE POST REPAIR shall be at the Contract Unit Price per EACH. This price and payment shall constitute full compensation for all labor, equipment and materials, for the satisfactory supply and installation of new pile post repair including transportation, temporary supports, environmental controls, survey, submittals, shop drawings, testing, supervision, removal, disposal cutting, removal and disposal of existing pile sections as required, cutting, removal and disposal of existing hardware and fasteners and temporary removal and reconnection of other attached utilities, members and components, connections, hardware and fasteners as required for posting of piles, and any other incidentals necessary to complete the work in accordance with the Contract Documents.
- B. Payment for TIMBER PILE REPLACEMENT shall be at the Contract Unit Price per EACH. This price and payment shall constitute full compensation for all labor, equipment and materials for the satisfactory supply and installation of new timber pile including transportation, temporary supports, environmental controls, survey, submittals, shop drawings, testing, supervision, removal, disposal, cutting, removal and disposal of existing piles as required, cutting, removal and disposal of existing hardware and fasteners and temporary removal and reconnection of other attached utilities, members and components, connections, hardware and fasteners as required, and any other incidentals necessary to complete the work in accordance with the Contract Documents.
- C. Payment for TIMBER PILE CAP REPAIR (sistering) shall be at the Contract Unit Price per EACH. This price and payment shall constitute full compensation for all labor, equipment and materials for the satisfactory supply and installation of timber pile cap repairs including transportation, temporary supports, environmental controls, survey, submittals, shop drawings, testing, supervision, removal, demolition, disposal of surplus materials, cutting, splicing, shimming, bracing, tar paper, timber blocking, connections, timber treatment, fasteners, all

- hardware required, and any other incidentals necessary for the satisfactory supply and installation of all work in accordance with the Contract Documents.
- D. Payment for TIMBER PILE CAP REPLACEMENT shall be at the Contract Unit Price per EACH. This price and payment shall constitute full compensation for all labor, equipment and materials for the satisfactory supply and installation of new timber pile caps including transportation, temporary supports, environmental controls, survey, submittals, shop drawings, testing, supervision, removal, demolition, disposal of surplus materials, cutting, splicing, shimming, bracing, tar paper, timber blocking, connections, timber treatment, fasteners, all hardware required, temporary removal and reinstallation of concrete panels, utilities, members and components and any other incidentals necessary for the satisfactory supply and installation of all work in accordance with the Contract Documents.
- E. Payment for MISCELLANEOUS TIMBER REPAIRS shall be at the Contract Unit Price per BOARD FOOT MEASURE (BFM). This price and payment shall constitute full compensation for all labor, equipment and materials for the satisfactory supply and installation of all timber bracing, wales, and slats including transportation, temporary supports, environmental controls, survey, submittals, shop drawings, testing, supervision, removal, demolition, disposal of surplus materials, cutting, shimming, drilling, connections, timber treatment, fasteners, all hardware required, temporary removal and reinstallation of utilities, members and components and any other incidentals necessary for the satisfactory supply and installation of all work in accordance with the Contract Documents
- F. Payment for BATTER PILE HARDWARE REPAIR shall be at the Contract Unit Price per EACH. This price and payment shall constitute full compensation for all labor, equipment and materials for the satisfactory supply and installation of batter pile hardware repairs including transportation, temporary supports, environmental controls, survey, submittals, shop drawings, testing, supervision, removal, demolition, disposal of surplus materials, cutting, drilling, connections, timber treatment, fasteners, all hardware required, and any other incidentals necessary for the satisfactory supply and installation of all work in accordance with the Contract Documents
- G. Payment for HARDWARE REPAIR shall be at the Contract Unit Price per EACH. This price and payment shall constitute full compensation for all labor, equipment and materials for the satisfactory supply and installation of miscellaneous hardware repairs including, transportation, temporary supports, environmental controls, survey, submittals, shop drawings, testing, supervision, removal, demolition, disposal of surplus materials, cutting, drilling, connections, timber treatment, fasteners, all hardware required, and any other incidentals necessary for the satisfactory supply and installation of all work in accordance with the Contract Documents

# 4.03 PAYMENT ITEMS

ITEM	DESCRIPTION	UNIT
061300-01	TIMBER PILE POST REPAIR	EACH
061300-02	TIMBER PILE REPLACEMENT	EACH
061300-03	TIMBER PILE CAP REPAIR	BFM
061300-04	TIMBER PILE CAP REPLACEMENT	BFM
061300-05	MISCELLANEOUS TIMBER REPAIRS	BFM
061300-06	BATTER PILE HARDWARE REPAIR	EACH
061300-07	HARDWARE REPAIR	EACH

**END OF SECTION** 

#### **SECTION 06 13 00.01**

# **TIMBER TREATMENT**

#### **PART 1 GENERAL**

#### 1.01 SCOPE OF WORK

- A. Work under this Section, without limiting the generality thereof, consists of the furnishing and installation of all materials itemized under MATERIALS in this Section, equipment, labor, transportation facilities, and all operations and adjustments required for the complete and operating installation as indicated on the Drawings, stipulated in the Specifications and as reasonably implied by either or both. This includes, but is not limited to the following
  - 1. The treatment of timber members with a wood preservative.
  - 2. The field application of all timber subject to field cutting.

# 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Timber under HEAVY TIMBER CONSTRUCTION, SECTION 06 13 00.
  - 2. Piles under ROUND TIMBER PILES, SECTION 31 62 19.

#### 1.03 OUALITY ASSURANCE

- A. Except as noted all work shall conform to the latest editions of the following codes, specifications, and standards:
  - 1. American Society for Testing and Materials (ASTM) D-25.
  - American Wood Preservatives Association (AWPA).

# **PART 2 PRODUCTS**

# 2.01 MATERIALS

- A. All new Southern Yellow Pine and Douglas Fir timber members to which the public may be exposed (decking, handrails, benches, similar) shall be treated with alkaline copper quaternary (ACQ) in accordance with AWPA Standards for material subject to saltwater use and shall obtain a green tint due to the treatment.
- B. All new Southern Yellow Pine timber members to which the public shall not be exposed (piles, stringers, pile caps, bracing, fenders, similar) shall be treated in accordance with AWPA Standard P5 and U1 UC5A for material subject to saltwater use.
- C. Creosote timber treatment is PROHIBITED

# PART 3 EXECUTION

- 3.01 Prior to treatment all dimension lumber shall be kiln-dried. Conditioning by heating is not permitted.
- 3.02 All timber to be treated with alkaline copper quaternary (ACQ) shall be treated to a retention of 0.6 pounds per cubic foot.
- 3.03 All timber to be treated with chromated copper arsenate (CCA) shall be treated to a retention of 2.5 pounds per cubic foot.
- 3.04 Sealing compound for treatment of field cuts and drilled holes shall be two (2) coats of copper naphthenate meeting AWPA standard P8.

# PART 4 MEASUREMENT AND PAYMENT

# 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for the work in this Section. Measurement and Payment for this item shall be included within the work it is associated with.

**END OF SECTION** 

#### **SECTION 09 96 26**

# **MARINE COATINGS**

#### **PART 1 GENERAL**

# 1.01 DESCRIPTION OF WORK

- A. Provide all labor, materials, equipment and supervision necessary to complete work specified in this Section.
- B. Scope of work includes, but is not necessarily limited to, furnishing and installing the following:
  - 1. Epoxy Coating for:
    - a. Steel Pipe Piles
    - b. Metal fabrications where noted in the documents
  - 2. Hot Dipped Galvanized:
    - a. Mooring Cleats
    - b. All hardware and fasteners unless noted otherwise
    - c. All other metal fabrications unless noted otherwise

# 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS:

- A. The following items of labor and/or materials and equipment are furnished and/or installed under other Sections of the specifications.
  - 1. Steel Pipe Piles under STEEL PIPE PILES, SECTION 31 62 23
  - 2. Metal fabrications under METAL FABRICATIONS, SECTION 05 50 00.
  - 3. Miscellaneous metals under MISCELLANEOUS METALS, SECTION 05 50 13.
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

# 1.03 QUALITY ASSURANCE

- A. Except as noted, work shall conform to the latest editions of the following codes, specifications, and standards:
  - 1. Steel Structures Painting Council (SSPC): Surface Preparations Specifications, specifications and standards herein referred to.
  - 2. American Society for Testing and Materials (ASTM): specifications and standards herein referred to.

# 1.04 SUBMITTALS

A. Manufacturer's literature and recommended application instructions. Certification that materials meet specification requirements.

- B. Color of coatings with samples.
- C. Name and address of a licensed independent testing service for approval by Engineer.
- D. Test reports including:
  - 1. Surface preparation verification
  - 2. Holiday detection
  - 3. Adhesion tests
  - 4. Thickness measurements

## 1.05 FIELD TESTING

- A. All coated elements shall be thoroughly inspected by an independent coating inspection by non-destructive methods.
- B. Coatings may be inspected by the Engineer using holiday detectors, field adhesion tests, or a combination of both.

#### 1.06 PRODUCT HANDLING

- A. All coated materials shall be delivered, stored, and handled with care to prevent damage to the coating.
- B. All coated materials, especially piles, shall be installed in such a manner that minimizes damage to the coating.
- C. Materials with damaged coatings will be rejected at the sole discretion of the Engineer, and the materials replaced, unless otherwise agreed to by the Engineer, at no additional cost to the Owner.

#### **PART 2 PRODUCTS**

#### 2.01 MATERIALS

- A. Coating on all steel pipe piles shall be a fusion bonded epoxy powder coating system. The coating shall be Scotchkote 6233 Fusion Bonded Epoxy Coating as manufactured by 3M Company, Electro-Products Division, St. Paul, MN; or equivalent by Armstrong Products Corporation of Warsaw, Indiana; or equivalent by Dupont Powder Coatings of Houston, Texas or approved equal.
- B. All fasteners, bolts, nuts, washers, splice plates, spacer plates, and shim plates shall be hot dip galvanized unless noted otherwise on the Contract Documents.
- C. All mooring cleats shall be hot dip galvanized.
- D. No coating of stainless steel is required.

#### PART 3 EXECUTION

## 3.01 SHOP SURFACE PREPARATION

A. General

- 1. All surfaces shall be thoroughly prepared for coating application in strict accordance with the coating manufacturer's recommendation and these specifications. All cleaning and coating work must be performed in a climate controlled building. Before grit blasting, the temperature shall be a minimum of 10°F above the dew point, and steel temperature shall be maintained at ambient room temperature or as otherwise required by manufacturer's recommendations. The contractor shall monitor the temperature and dew point throughout the cleaning and coating process.
- 2. Grit blasting shall be to clean grey metal, at least equivalent to a Near White as defined by SSPC Specification SP-10. All work blasted in one day must be coated the same day.
- 3. Any areas of the surface which show traces of oil, grease, or other organic matter shall be removed prior to coating. The contamination shall be removed by using either a solvent or spot blasting.
- 4. All surfaces to be coated must be completely dry, free of moisture, soil, dust, and grit at the time coating is applied.
- 5. The Owner or Engineer shall have access to each part of the process and shall have the right and opportunity to witness any of the quality control tests and/or perform such test themselves on a random sampling basis.

#### 3.02 APPLICATION OF COATING

- A. Fusion Bonded Epoxy (FBE) Coating (Shop Coat)
  - The fusion bonded epoxy coating shall be applied in an environmentally controlled plant that is fully enclosed. The coating system shall be fully automatic with the capabilities of preheating and post baking. The grit blast cleaning machine shall be fully automatic and fully enclosed in an environmentally controlled plant.
  - 2. The finished coating thickness shall be **10 mils nominal** as tested in accordance with ASTM-G12.
  - 3. The coating material shall be applied strictly in accordance with the coating manufacturer's recommendation as to coating application procedure and curing schedule. In no case, shall the oven temperatures or temperature of the piling during any part of the curing process, exceed 260 C (500 F.).
  - 4. The cured coating shall be of uniform color, gloss and thickness, and shall be free of blisters, pinholes, fish eyes, sags, runs, and any other irregularities.
  - 5. The coater shall be responsible for all quality control checking including visual inspection, thickness measurements, and holiday testing, and shall keep records on the results of all such inspections in a form suitable to the Engineer's Representative.
  - 6. The Engineer's Representative shall have access to each part of the process and shall have the right and opportunity to witness any of the quality control test and/or perform such test himself on a random sampling basis.
- B. High Solids Epoxy or Coal Tar Epoxy (Shop Coat)

- 1. All coatings shall be applied by brush or spray using commercially available spray equipment. The coatings shall exhibit reasonable leveling without excessive sagging when applied at the required film thickness. Ensure proper adhesion between coats, depending on method of coating application, without undue restrictions concerning timing, temperature or other conditions associated with application. Coating manufacturer's recommendations and these specifications shall be adhered to. The temperature of the coating shall be within 15 degrees F of the temperature of the steel at the time of coating application.
- 2. Where coating on any type of surface has commenced, the complete coating operation, including priming and finishing coats when multiple coats are used on that portion of the work, shall be completed as soon as practicable, without prolonged delays. Where necessary, sufficient time shall elapse between successive coats to permit them to dry properly for recoating and this period shall be modified as necessary to suit curing conditions.

## 3. Coating Thickness

- a. A minimum thickness (not average) of 14 mils dry film is required on all exterior surfaces to be coated and 12 mils dry film on all accessible interior surfaces.
- b. Where two coats are required to achieve the recommended film build, the interval between coats should be as short as possible. To ensure maximum intercoat adhesion, it is recommended that:
  - 1) The next coat shall be applied as soon as possible after the previous coat has undergone final curing.
  - 2) If the previous coat has cured for more than the recoat time specified by the manufacturer, wash with fresh water, and then brush blast to provide an adequate mechanical bond before recoating.
  - 3) Final Curing Time: Coated surfaces shall be permitted as long a drying time as practicable, but in any event the minimum requirements shall be in accordance with the coating manufacturer's recommendations.
  - 4) Thinning: Whenever possible the material shall be applied without thinning. Where thinning must be done, it shall be as recommended by the coating manufacturer. If the material is thinned, it may be necessary to apply more than the standard 1 or 2 coats to attain the required minimum (not average) dry film thickness of 14 mils.

#### c. Appearance of Finished Coating

 The finished coating shall be generally smooth and free of sharp protuberances which could be removed by abrasion. A minor amount of sags, dimpling, or curtaining which does not

- exceed 2 to 3 percent of the surface will not be considered cause for rejection unless they present sharp edges which might be removed by abrasion.
- Sharp protuberances shall be cut off using a sharp wood chisel laid flat against the surface. The area from which material has been removed shall be recoated to smooth the surface.

#### 3.03 FIELD SURFACE PREPARATION

- A. Field surface preparation and coating shall only take place on items requiring field assembly or touch up such as weldments, scraps, chips, and areas where coating has been damaged.
- B. Grind, wire brush, or otherwise clean to grey metal. Work to be at least equivalent to Power Tool Cleaning as defined by SSPC specification SP-3. All work cleaned must be coated on the same day.
- C. Traces of oil, grease, or other organic matter on areas of the surface shall be removed prior to coating. The contamination shall be removed by using either a solvent or spot blasting.
- D. All surfaces to be coated must be completely dry, free of moisture, soil, dust, and grit at the time the coating is applied.

#### 3.04 FIELD COATING

#### A. General

- 1. Prior to installation, all connections and items which will become inaccessible after installation shall be coated.
- 2. After coated items have been installed, field coat all accessible areas which have been scraped or chipped.
- 3. After field coating and touch up of coatings, the coating shall have a uniform, consistent finish, including the color and appearance of the coating. Engineer reserves the right to reject any materials considered to not have a uniform, consistent coating and have them either replaced or re-coated by the Contractor at no additional cost to the Owner.

## B. Fusion Bonded Epoxy (FBE) Coating Touch Up

- 1. The touch up epoxy material shall be 3M Scotchkote 323/323i Liquid Epoxy Coating or an approved equivalent two-part epoxy system designed and color-matched for patching the epoxy coating utilized during shop coating and with the same manufacturer.
- 2. Mixing: Mix ratio of Part A to Part B shall be 1:1 by volume. The two parts must be thoroughly mixed until a uniform color is achieved. If thinning is required, thin each part separately to minimize loss of pot life with thinner recommended by the producer. Pot life should be approximately 8 hours.

3. Application: Material should be capable of being applied with ordinary brush or roller at a temperature of 55 degrees F. and above. A tack-free surface should be achieved in 2 to 3 hours at 72 degrees F. Full cure should be achieved in 3 to 5 days at 72 degrees F. Care should be exercised in handling parts before they are fully cured.

## C. Epoxy Coating (High Solids) Touch Up

- The touch up of High Solids Epoxy coating shall be with the same High Solids Epoxy coating system utilized during shop coating and with the same coating manufacturer.
- 2. Application of field coating shall be as recommended by the manufacturer and cleaning and curing criteria prior to installation shall be strictly adhered to.

## D. Galvanized Steel - Touch Up

1. Repair of hot dip galvanizing shall be using zinc rich paint. Zinc rich paint shall be an organic zinc-rich coating containing 95% metallic zinc, by weight in the dried film.

#### 3.05 HOT DIP GALVANIZING

- A. Galvanizing shall be by the hot dip method according to ASTM Specifications A-123 and A-153
- B. Repair of hot dip galvanizing shall be using zinc rich paint. Zinc rich paint shall be an organic zinc-rich coating containing 95% metallic zinc, by weight in the dried film.

### 3.06 CARE OF EXISTING WORK

- A. Existing work shall be protected from spillage and spattering during application of coatings.
- B. All spillages and spattering shall be cleaned up immediately. Contractor is responsible for leaving existing areas free of all such foreign materials.

#### 3.07 DEFECTIVE MATERIALS

A. Coating which, in the opinion of the Engineer, does not meet acceptance due to improper coating, storage, handling, installation or other damage shall be rejected. The rejected materials shall be, at the sole discretion of the Engineer, either replaced with new coated material or completely cleaned to base material and re-coated in accordance with these specifications for shop coating of materials. This work shall be done at no additional cost the Owner.

#### **PART 4 MEASUREMENT AND PAYMENT**

## 4.01 METHOD OF MEASUREMENT AND PAYMENT

A. No separate measurement or payment shall be made for the work in this Section. Measurement and Payment for this item shall be included within the work it is associated with.

# **END OF SECTION**

#### **SECTION 31 62 19**

#### **ROUND TIMBER PILES**

#### **PART 1 GENERAL**

#### 1.01 DESCRIPTION OF WORK

- A. Provide all labor, materials, equipment and supervision necessary to complete work specified in this Section.
- B. Scope of work includes, but is not necessarily limited to, furnishing and installing the following:
  - 1. Timber Bearing Piles
  - 2. Timber Fender Piles
  - Timber Pile Posts
- C. Should drawings not agree within themselves or the specifications, the greater quantity, or superior quality of work or materials shall be included.

#### 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Fasteners, anchor bolts, bolts, and lag bolts under MISCELLANEOUS METALS, SECTION 05 50 13.
  - 2. Pile treatment under TIMBER TREATMENT, SECTION 06 13 00.01
  - 3. Timber under HEAVY TIMBER CONSTRUCTION, SECTION 06 13 00
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

## 1.03 QUALITY ASSURANCE

- A. Except as noted, work shall conform to the latest editions of the following codes specifications and standards
  - 1. American Society for Testing and Materials (ASTM), Specifications: D25 Round Timber Piles.
  - 2. American Institute of Timber Construction (AITC).

#### 1.04 SUBMITTALS

- A. Submit for approval by Owner proposals for following items:
  - 1. Proposed test pile details
  - 2. Driving plan and schedule for installation of piles.
  - 3. Method of installation of piles including size and type of pile hammer.

- 4. Templates and falsework to be used for support and layout of piles during driving.
- B. Certification of timber pile species.
- C. AWPA quality stamp on each new treated pile.

#### 1.05 PRODUCT HANDLING

A. Piles shall be handled with care to prevent damage. Damaged piles will be rejected and replaced at no additional cost to the Owner. Piles shall be stored with a space beneath the piles and situated to prevent being exposed to standing water. Cant hooks or pike poles shall not be used.

#### **PART 2 PRODUCTS**

#### 2.01 MATERIALS

- A. All timber piles:
  - 1. Piles shall be free from any defects, which will impair their strength, or usefulness for the purpose intended or that will prevent proper driving.
  - 2. All piling shall be cut from sound and live trees, preferably during the winter season.
  - 3. Based on available soils information, the anticipated installed pile lengths to meet the required load capacities are as follows:
    - a. Bearing Piles
      - 1) All Wharf 55'
      - 2) Cut-Off Elevation Match Existing
  - 4. Minimum circumference three (3) feet from the butt shall be 38" and minimum tip circumference shall be 22" for piles over 30' in length.
- B. Greenheart Piles for Bearing Piles and Fender Piles
  - 1. Greenheart piles shall be supplied by a company that operates in the Guiana Shield countries and in conformity with the International Conventions and National Forestry Regulations relating to the management of forestry concessions. Company shall enforce the protection of the endangered species listed by CITES (Convention on Trade in Endangered Species) and the biodiversity of the ecosystems. It respects the Intellectual Property Rights of the Indigenous Peoples, whose communities are the beneficiaries of the Company's field operation.
  - Greenheart piles shall be supplied by a company that stresses the need for low impact forestry operations, ensuring that its forestry extraction is state of the art while constantly monitoring the effect of its logistics systems on watershed management and its use of biodegradable wood preservatives.

- 3. Greenheart piles shall be banded at 12" below final cutoff elevation. Bands shall be 1¼" wide stainless steel 19 gauge. Each pile shall be double wrapped with the band.
- 4. Banding of greenheart piles shall occur prior to any cutting.
- C. Treated Timber Piles for Pile Posts:
  - 1. All CCA Treated Piles shall be clean-peeled and treated West coast Douglas Fir or Southern Yellow Pine, meeting ASTM D25-86.
  - 2. Timber Treatment shall comply with Specification Section 06 13 00.01.
  - 3. Piles shall be free from any defects, which will impair their strength, or usefulness for the purpose intended or that will prevent proper driving.
  - 4. Tops of bearing piles shall be covered with tar paper. Tar paper shall extend over the cut outs for the pile caps as shown on contract drawings. Tar paper shall be 15 # and meet ASTM D4869.

#### **PART 3 EXECUTION**

#### 3.01 DRIVING EQUIPMENT

- A. Pile hammers: Vibratory, air, steam or diesel-powered, of a type approved by the Owner.
  - 1. Impact Hammers: The furnished hammer shall have at least a capacity equal to the hammer manufacturer's recommendation for the total weight of pile and character of subsurface material to be encountered. The minimum driving energy of the hammer shall be 6500 foot-pounds. For piles of any length, the maximum driving energy of the hammer shall be 12,000 foot-pounds. Diesel-powered hammers shall be operated at the rate recommended by the manufacturer throughout the entire driving period. Sufficient pressure shall be maintained at the hammer so that: (1) for double-acting hammer, the number of blows per minute during and at the completion of driving of a pile is equal approximately to that at which the hammer is rated; (2) for single-acting hammer, there is a full upward stroke of the ram; and (3) for differential-type hammer, there is a slight rise of the hammer base during each upward stroke.
    - 2. Vibratory Hammers: Vibratory hammers will only be allowed when bearing capacity determination by blow count or driving energy is not required. Driving helmets and cushion blocks:
      - a. Use a driving helmet or cap including a cushion block or cap block of a design approved by the Owner between the top of the pile and the ram to prevent impact damage to the pile.
      - b. The driving helmet or cap and cushion block combination shall be capable of protecting the head of the pile, minimizing energy absorption, and transmitting hammer energy uniformly and consistently during the entire driving period.

- c. The driving helmet or cap shall fit snugly on the top of the pile so that the energy transmitted to the pile is uniformly distributed over the entire surface of the pile head.
- d. Demonstrate to the Owner that the equipment to be used on the project performs the above functions.
- e. The cushion block may be a solid or laminated softwood block with the grain parallel to the pile axis and enclosed in a close-fitting steel housing. The thickness of block shall be suitable for the length of pile to be driven and the character of subsurface material to be encountered. Generally, thicker blocks are required for longer piles and softer subsurface material.
- f. Replace cushion block if it has been damaged, split, highly compressed, charred or burned or has become spongy or deteriorated in any manner.
- g. Under no circumstances will the use of small wood blocks, wood chips, rope or other material permitting excessive loss of hammer energy be permitted.

#### 3.02 HANDLING

- A. Inspect piles in the leads, and where the protective shell or treated wood is impaired, between cutoff and a point which will be not less than 10 feet below the ground, the piles shall be repaired as specified under Timber Treatment unless the pile is damaged to such an extent that it is rejected. Rejected piles will be replaced at no additional cost to the Owner.
- B. Support pile laterally during driving, but not unduly restrained from rotation in the leads. Where pile orientation is essential, take special care to maintain the orientation during driving. Take special care in supporting battered piles to prevent excess bending stresses in the pile.
- C. When necessary, place collars around the pile head to prevent brooming. Cant hooks shall not be used in handling treated piles. Cut piles by sawing or other means approved by the Owner. Holes for rebar shall be of a size that will ensure a driving fit.
- D. Greenheart piles shall be banded prior to any cutting.

#### 3.03 DRIVING PILES

- A. All piles shall be driven in the presence of the Engineer or his representative.
- B. Timber Bearing Piles:
  - 1. All Bearing Piles shall be driven using an impact hammer
  - 2. Drive without interruption using an impact hammer to the specified capacity.
  - 3. Minimum installed pile tip elevation shall be 10 feet below finished mudline or as otherwise shown on the Contract Documents

- 4. All Bearing Piles shall be driven to a minimum working load of 15 tons.
- 5. ALL bearing piles shall be subjected to a pile load test OR for bearing piles with specified minimum working loads of 25 tons or less, bearing piles shall be driven for at least the last 12 inches using an impact hammer and the allowable working pile load shall be computed by means of the following pile driving formula using actual recorded blow counts for each pile:

$$R = 2E/(S+C)$$

#### where:

- R = Allowable pile load in pounds
- E = Actual energy delivered by the hammer per blow in footpounds
- S = Penetration of last blow or average penetration of last few blows experienced in inches
- C = Constant equal to 1.0 for drop hammer and 0.1 for steam, diesel or air hammer
- a. The value of "S" must be determined with the hammer operated at one hundred (100) percent of the rated number of blows per minute for which the hammer is designed.
- b. Any driving resistance developed in strata overlying the bearing material shall be discounted.
- c. If the driving of the pile has been interrupted for more than one (1) hour, the value of "S" shall not be determined until the pile is driven at least an additional twelve (12) inches, except when it encounters refusal.

## C. Fender Piles:

- 1. Drive piles to minimum tip elevations as shown on Contract Drawings unless refusal is encountered.
- 2. Pile Requirements:
  - a. Cut-Off Elevation +15 ft NAVD88 or as directed on site
- 3. Pile heads shall be cut at 15 degrees to the horizontal. Cut off elevation shall be lowest edge of sloping cut.
- 4. All Greenheart Piles shall be banded within 12" of pile cut off elevation.
- D. Tolerances in Driving: The center of the pile butts shall be within 3 inches horizontally of their plan location, and piles shall be cut-off within 1 inch of their cut-off elevation. Manipulation of piles to force them into position will not be permitted. Check all piles for heave. Re-drive heaved piles to the required elevation. Piles damaged, mislocated, or driven out of alignment shall be replaced or additional piles driven as directed at no additional cost to the Owner.

#### 3.04 INSTALLATION

- A. Before driving, mark and number each pile in 5-foot intervals along its entire length. In addition, provide marks at 1-foot intervals for the top 40 feet of the pile. Markings should indicate length from the pile tip and should be visible above the waterline or ground level after driving.
- B. If obstructions are encountered, contractor shall make reasonable effort to remove obstruction. Reasonable efforts shall include excavation, removal and disposal if obstruction is shallow (less than 5 feet) or driving a steel pile of at least the same diameter as the timber pile to remove or bypass the obstruction. Driving steel piles shall include changing to an impact hammer to better drive past the obstruction. This work shall be considered as part of the work associated with pile installation and no additional payment will be made for dealing with obstructions.
- C. Pile Cut-Offs: After completion of driving, tops of piles shall be cut off to remove damage caused by driving hammer. All cut offs shall be the property of the contractor for removal and disposal from the project site.
- D. Piles that split under driving or prove otherwise unsatisfactory shall be removed and replaced from the site at the sole expense of the Contractor and to the satisfaction of the Engineer.
- E. The driving of piles with followers shall not be permitted.
- F. Spudding, jetting, auguring or pre-drilling of piles to achieve the required penetration will not be permitted unless approved in writing by the design engineer.
- G. Any pile, which may be driven in the wrong position, shall be removed and driven in the correct position. Contractor will not be paid for piles driven in the wrong position.
- H. Any pile which may prove too short after driving, or which has been split, broomed, upset, or otherwise damaged during driving, shall be rejected and another satisfactory pile shall be substituted and properly driven. The Contractor shall not be paid for pile work associated with the replacement of piles in the above category.
- I. Tops of piles shall be trimmed and shaped as required to connect to other work as shown on the Contract Drawings.

### 3.05 INSPECTIONS

- A. All piles will be subject to inspection before or after shipment to the site, or both, at the option of the Engineer. Any pile that does not conform to all requirements will be rejected.
- B. A line drawn from the center of the butt to the center of the tip must lie wholly within the body of the pile. Any pile that does not meet this requirement shall be rejected.
- C. Inspection of pile driving operations will be provided by the Engineer. No piles shall be driven except in the presence of an authorized inspector.

- D. Approval given by the Engineer or by his agent shall not relieve the Contractor of his responsibility for performing the work in accordance with the plans and specifications.
- E. Contractor shall not cut off top of pile until verification by the Engineer.

#### 3.06 RECORDS

A. A complete and accurate record of each pile shall be furnished by the Contractor. The presence of the Owner or the Owner's representative will not exempt the Contractor from the requirement to keep and furnish his own records. The record shall indicate the pile location, diameter, length, hammer (make and model), number of blows per 6" for the final 36 inches of penetration, all other pertinent information. Where a vibratory hammer is used for friction piles, the time of driving shall be recorded per 6 inches for the final 36 inches of penetration.

#### PART 4 MEASUREMENT AND PAYMENT

#### 4.01 METHOD OF MEASUREMENT AND PAYMENT

- A. No separate measurement or payment will be made for timber pile cut-offs.
- B. No separate measurement or payment shall be made for work in this Section. Measurement and Payment for this item shall be included within the work with which it is associated.

**END OF SECTION** 

#### **SECTION 31 62 23**

#### **STEEL PIPE PILES**

#### **PART 1 GENERAL**

#### 1.01 DESCRIPTION OF WORK

- A. Provide all labor, materials, equipment and supervision necessary to complete work specified in this Section.
- B. Scope of work includes, but is not necessarily limited to, furnishing and installing the following:
  - 1. Concrete Float steel pipe mooring piles, concrete filled
  - 2. Fabricating and delivering piles.
  - 3. Cutting off piles at the required elevations and disposing of cutoff portions.
  - 4. Splicing piles as needed.
  - 5. Cleaning out the piles where required.
  - 6. Filling all pipe piles with concrete.
- C. Should drawings not agree within themselves or the specifications, the greater quantity, or superior quality of work or materials shall be included.
- D. Contractor will be responsible for protection and safety of buildings and other structures during pile driving operations near and over buildings or other structures.

#### 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Metal under METAL FABRICATIONS, SECTION 05 50 00
  - 2. Concrete infill under REINFORCED CONCRETE, SECTION 03 31 30.
  - 3. Floats under CONCRETE FLOATING DOCKS, SECTION 35 51 13.01
  - 4. Coating of piles under MARINE COATINGS, SECTION 09 96 26.
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

#### 1.03 QUALITY ASSURANCE

- A. Except as noted, work shall conform to the latest editions of the following codes specifications and standards
  - 1. American Society for Testing and Materials (ASTM)
  - 2. American Welding Society (AWS)
  - 3. American Institute of Steel Construction (AISC)

- 4. The Commonwealth of Massachusetts, Department of Public Works "Standard Specifications for Highways and Bridges" (latest edition). (MHD)
- 5. The Massachusetts State Building Code
- B. Comply with all rules, regulations, laws and ordinances of the Commonwealth of Massachusetts and all other federal, state, and local authorities having jurisdiction. All labor, materials, equipment and services necessary to make work comply with such requirements shall be provided without additional cost to The Town.
- C. Compliance with all conditions within the Regulatory Approvals.
- D. All welding shall be performed by operators who have been previously qualified by tests as prescribed in the "ANSI/AASHTO/AWS Bridge Welding Code D1.5-88". Evidence that welders meet qualification requirements shall be submitted to the Engineer before welding is begun.

#### 1.04 SUBMITTALS

- A. Contractor Qualifications Submit:
  - 1. List of at least 5 previous projects (with year completed) involving pile driving of 24-inch or larger steel pipe piles.
  - 2. Resumes of pile driving subcontractor's project manager and superintendent, demonstrating at least 10 years of relevant experience.
- B. Shop Drawings Submit:
  - 1. Shop drawings showing design details of piles including, but not limited to, sizes, splice details, welding procedures for both shop and field welds, pile coatings, and other items pertinent to pile fabrication and installation.
- C. Concrete Mix Design Submit:
  - 1. Tremie concrete mix design including supporting documentation, and a list of 4 projects within the past two years in which the mix has been used.
- D. Pile Installation Plan Submit a description of the pile driving procedures, including:
  - 1. Equipment.
  - 2. Method of lifting and aligning piles at the correct location including the use of false work and templates.
  - 3. Methods to clean out piles and remove obstructions.
  - 4. Details of procedure to tremie fill the piles with concrete.
- E. Manufacturer's Literature Submit technical and performance literature for:
  - Pile driving hammer and related equipment, including cap block and cushion.
  - 2. Pile splicing system.
  - 3. Pile tip reinforcement and cutting shoes.
- F. Installed Pile Data Submit during the work:
  - 1. Weekly drawings of as-driven/as-installed pile locations.

- 2. Final pile location plan, certified by Registered Land Surveyor or by a Registered Professional Engineer.
- 3. Pile installation records for each pile as the work progresses.
- G. Data for piles Submit during the work:
  - 1. Results of concrete compressive strength tests.
  - 2. Mill certificates for all steel pipe provided for piling. Provide certificates, prior to driving, that provide the chemical composition, yield point, and ultimate strength of the steel proposed for use.
  - 3. Mill certificates for steel driving shoes.

#### 1.05 PRODUCT HANDLING

A. Piles shall be handled with care to prevent damage to pile and coating. Damaged piles will be rejected and replaced at no additional cost to the Town. Piles shall be stored with a space beneath the piles and situated to prevent being exposed to standing water.

#### 1.06 EXAMINATION OF SITE

A. Inspect the site personally to evaluate the conditions affecting the work. No claim for additional costs will be allowed because of lack of knowledge of any existing conditions discernible from observation at the site, adjoining properties, and available sources of information. Copies of available drawings of existing on-site structures may be inspected at the office of the Town.

#### 1.07 LINES AND GRADES

- A. Lay out pile locations and establish all elevations required. Provide and maintain an approved baseline and benchmark located on or close to the work.
- B. Employ, within the Contract Price, a licensed Registered Land Surveyor or a Registered Professional Engineer, familiar with this type of work, who shall establish lines and levels.
- C. Submit to the Town within two weeks after the completion of installation of all piles, a plan, certified by the Surveyor, showing the as-installed location of all piles to the nearest ¼ inch.

#### 1.08 OBSERVATION AND TESTING

- A. Full-time inspection of pile installation operations will be performed by the Engineer. Drive no piles except in the presence of the Engineer.
- B. Cooperate with the engineer to document all pertinent data relative to the installation of piles. The record for each pile shall include:
  - 1. The date and time of installation.
  - 2. Type and size of hammer; pressure and stroke at which operated.
  - 3. Total penetration, shown by point elevation and cutoff elevation.
  - 4. Pertinent notes as to unusual behavior of a pile.

- C. Inspection: Engineer shall have access to work. Contractor shall make available all materials and equipment necessary at all times for purposes of inspection. Contractor shall cooperate with and assist the Engineer's inspection. Inspection by the Engineer may include, but is not necessarily limited to:
  - 1. Condition of piles prior to installation.
  - 2. Location of piles prior to installation.
  - 3. Verification of hammer performance and energy.
  - 4. Location of piles after installation.
  - 5. Condition of piles after installation.
- D. Approvals given by the Town or their Engineer shall not relieve the Contractor of responsibility for performing the work in accordance with the plans and specifications.

#### **PART 2 PRODUCTS**

#### 2.01 MATERIALS

- A. Steel Pipe Piles:
  - 1. <u>Mooring Piles</u>: Pipe piles shall have an outside diameter and wall thickness of the size indicated on the Contract Drawings. Pipe shall be seamless or fusion-welded and conform to ASTM A252, Grade 3 for Welded and Seamless Steel Pipe Piles with a minimum yield strength of 50 ksi.
- B. Piles Splices:
  - 1. Piles may have up to one (1) splice located at least 15 feet below the mudline.
- C. All steel pipe piles shall be driven open ended.
- D. Pile Infill: All piles shall be concrete filled.
  - 1. Concrete infill for piles shall have a mix design suitable for tremie placement methods, in accordance with Section 03 31 30, Reinforced Concrete.
- E. Pile Coatings: The external surface of all pipe piles shall be coated in accordance with Section 09 96 26; Coatings shall extend from 10 feet below mudline to cut off elevation of the pile.

#### **PART 3 EXECUTION**

## 3.01 DRIVING EQUIPMENT

- A. Install piles with approved modern equipment.
  - 1. Vibratory Hammers: Vibratory hammers will be allowed when pile capacity determination by blow count or driving energy is not required and for initial seating of piles.
- B. Driving Helmets: The driving helmet or cap shall be capable of protecting the head of the pile, minimizing energy absorption, and transmitting hammer energy uniformly and consistently during the entire driving period. The driving helmet or cap shall fit

snugly on the top of the pile so that the energy transmitted to the pile is uniformly distributed over the entire surface of the pile head. Demonstrate to the Engineer that the equipment to be used on the project performs the above functions.

#### 3.02 HANDLING

A. Inspect piles, and where the protective shell is impaired, the piles shall be repaired unless the pile is damaged to such extent that it is rejected. Rejected piles will be replaced at no additional cost to The Town. Support pile laterally during lifting and driving, but not unduly restrained from rotation in the leads. Where pile orientation is essential, take special care to maintain the orientation during driving and drilling.

## 3.03 PILE INSTALLATION

- A. Before installation, mark and number each pile in 5-foot intervals along its entire length. In addition, provide marks at 1-foot intervals for the top 40 feet of the pile.
- B. Install all piles at the proper locations shown on the Drawings. Check pile locations during installation and take appropriate corrective measures if the pile moves off location during installation as specified below. Advise the Town immediately when this becomes necessary.
- C. Pile driving shall be performed using a vibratory hammer where practicable.
- D. Drive piles continuously and without interruption to the required tip elevations shown on the Contract Drawings.
- E. Pile support: All piles shall be supported by using either a two-level template with the top level close to the pile cut-off elevation and the lower level approximately 15 feet below or by the use of fixed lead or by a method approved by the Engineer.
- F. Mooring Piles for all floats shall be driven using the pile guides as the driving template.
- G. Contractor shall notify Engineer 48 hours prior to pile installation, and no piles shall be installed to final position without the presence of the Engineer's Representative.
- H. Pile coatings shall be protected from falsework and templates to prevent coating damage or loss. Repair all damage to coatings.
- I. Provide a vertical reference stake, at least 2 feet long and marked clearly in inches, which can be used to measure the penetration of the pile with each blow as the pile is driven. Support the stake firmly against a fixed object no more than 5 feet away from the pile.

#### 3.04 RECORDS

- A. Keep a record, independent of that which may be made by The Town, of all pertinent data relative to the installation of piles. This record shall be available for The Town's inspection, being transmitted to them as they may direct. The record for each pile shall include:
  - 1. The date and time of installation.
  - 2. Kind and size of hammer; pressure and speed at which operated.

- 3. Total penetration, shown by point elevation and cutoff elevation.
- 4. Pertinent notes as to unusual behavior of a pile.

#### 3.05 DEFECTIVE, DAMAGED, AND MIS-DRIVEN PILES

A. Piles damaged due to internal defects or improper driving, or lack of strength will not be accepted. Such defective and damaged piles, as well as piles driven out of proper location or in excess of the tolerances specified, shall be replaced at no additional cost to The Town.

## 3.06 PILE SPLICES

- A. When required, splice pipe by continuous full penetration butt-joint, single bevel arc weld around the circumference to produce watertight joints developing 100% of the pile strength in tension and compression and bending. A backup ring, with a crimp or pin to separate the pipe sections, and of a type approved by The Town shall be used for all splices. All welds shall conform to AWS D1.1 Structural Welding Code and all electrodes shall be E70XX.
- B. Pipe piles may be spliced in the leads. Secure the sections of piles to be spliced in proper alignment such that there is no eccentricity between the axes of the two spliced lengths, or angle between them, after the splice has been completed.
- C. Mechanical drive-fit splices will not be accepted.

#### 3.07 CUTTING OFF PILES

A. Cut off the tops of all piles square within 1 inch of the elevations shown on the Drawings. The pile cutoffs shall become the property of the Contractor and shall be removed from the site.

#### 3.08 CONCRETING

- A. Do not clean out the Mooring Piles prior to placing concrete unless indicated on the Drawings or as directed by the Engineer.
- B. Place concrete in the pile using tremie methods. Place concrete in each pile in a continuous process and in a manner which will result in complete filling of the pile with a minimum of segregation. Use an internal vibrator in the upper 20 feet of concrete in each pile.
- C. Fill no pile except in the presence of the Engineer who will observe and record the placing of the concrete.

#### **PART 4 MEASUREMENT AND PAYMENT**

## 4.01 METHOD OF MEASUREMENT

A. Measurement for MOORING PILES shall be measured by the Contract Unit Price EACH.

#### 4.02 METHOD OF PAYMENT

A. Payment shall be made for the MOORING PILES at the Contract Unit Price EACH and shall include all compensation for all materials, equipment, labor, transportation, survey, supervision, driving, templates, temporary supports, extraction and redriving as necessary to ensure required horizontal or vertical tolerances and/or required pile capacity, materials including piles, pile splices, pile coating and coating repair, reinforcing steel, concrete fill, disposal of any surplus material and incidental or appurtenant work, including all cutting, coating, horizontal pile movements, and any other incidentals necessary to complete the work specified herein and as shown on the Contract Documents.

## 4.03 PAYMENT ITEM

<u>ITEM</u>	DESCRIPTION	<u>UNIT</u>
31 62 23-01	Mooring Piles	EA

**END OF SECTION** 

#### **SECTION 35 51 13.01**

#### **CONCRETE FLOATING DOCKS**

#### **PART 1 GENERAL**

#### 1.01 DESCRIPTION OF WORK

- A. Provide all labor, materials, equipment, and supervision necessary to complete work specified in this Section.
- B. Scope of work includes, but is not necessarily limited to, design, manufacture, furnishing and installation of Concrete Float. The floating system is schematically indicated on the drawings and specified herein. Proposed floating dock systems shall be designed to provide equivalent service to and meet all pertinent requirements of these specifications. All materials shall be compatible and intended for the saltwater environment. The approved floating dock system shall be furnished and installed complete, including decking, bridging plates, mooring cleats, rub strip, bumper strip, pile guides, utility chases, utility components, and all associated fasteners and hardware, connectors and fittings so that the system is complete and ready for use including, but not limited to, the following:
  - 1. Concrete Float
  - 2. All associated float connection and attachment hardware
  - 3. Pile mooring brackets and associated hardware
  - 4. Provision for utilities within the float system interior
  - 5. Taking delivery of and installation of Owner supplied gangway
  - 6. Attachments for Aluminum components
  - 7. Assembly and installation at the project site

#### 1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following items of related work are specified and included in other Sections of the Specifications:
  - 1. Steel Piles under STEEL PIPE PILES 31 62 23
  - 2. Fasteners, chains, connectors, under MISCELLANEOUS METALS, SECTION 05 50 13
- B. Examine all Drawings and all Sections of the Specifications for requirements and provisions affecting the work of this Section.

#### 1.03 INTEGRATION OF FLOATING SYSTEM

A. Guide Piles: The floating concrete system shall be designed to be restrained by the system of guide piles. The pile guides and structural system of the docks shall be designed to transfer the pile loads between the individual components of the dock system, and the dock system and guide piles.

B. Utility System: The floating dock system shall be designed to accommodate utility systems including electrical systems, lighting, water and communications. Internal corridors with removable cover panels or a conduit system with access points shall be provided for routing utility lines through the marina. This internal corridor shall be of sufficient size to contain the utility systems in an orderly manner. The utility corridor shall be constructed in such a manner that complete inspection of the utility system can be made and that full maintenance of the utility systems can be performed from the top of the deck

#### 1.04 QUALITY ASSURANCE

- A. Except as noted, work shall conform to the latest editions of the following codes specifications and standards:
  - 1. American Society for Testing and Materials (ASTM)
  - 2. American Welding Society (AWS)
  - 3. American Institute of Steel Construction (AISC)
  - 4. American Institute of Timber Construction (AITC)
  - 5. American Concrete Institute (ACI)
  - 6. American Wood-Preservers Association (AWPA)
  - 7. Concrete Reinforcing Steel Institute (CRSI)
  - 8. Massachusetts State Building Code (MSBC)
  - 9. Prestressed Concrete Institute (PCI)
- B. Manufacturer's Qualifications:
  - 1. Manufacturer shall have a minimum of 10 years' experience in the design, production, and installation of concrete floating dock systems for the following:
    - a. Projects of equivalent or larger size with successful performance in saltwater environment.
    - b. Projects in ice and extreme cold seasonal conditions in saltwater environment.
  - 2. Design engineer shall have at least 5 years' experience in the design of concrete floating docks in equivalent exposure and shall be a Licensed Professional Engineer in the Commonwealth of Massachusetts and required to stamp all submittals including shop drawings and calculations.
  - 3. Manufacturer shall provide five (5) references for projects with the above conditions including contact information and detailed facility information.
  - 4. Manufacturer shall warrant the product for a minimum of two years.
  - 5. Manufacturer's product to have a minimum of 25 years life with minor maintenance.

#### 1.05 SUBMITTALS

- A. Proof of Manufacturer's Qualifications including:
  - 1. Example projects illustrating 10 years of experience of similar projects both in size and environmental conditions
  - 2. Five (5) references for projects with the above conditions including contact information and detailed facility information.
  - 3. Design Engineer qualifications and license information
- B. Design calculations of all structural components and connections in a clear organized and readable form acceptable to the Owner, complete with the signature and seal of a Registered Professional Engineer, licensed in the Commonwealth of Massachusetts, responsible for the work. Design calculations shall be comprehensive package including all design assumptions and shall include concrete floats, connections, guides, pile capacity verification.
- C. Manufacture and Assembly Drawings:
  - 1. Precast Concrete Units
    - a. Plan, cross-section, and details of the unit to be manufactured
    - b. Material specifications including sizes and corrosion protection systems
    - c. Utility Raceways location and sizes if applicable
  - 2. Connection Hardware
    - a. Material Specifications includes sizes and corrosion protection systems
  - 3. Manufacturer Quality Control
    - a. Material Certifications
    - b. Concrete mix design with all admixtures
    - c. Concrete testing reports for air, slump and strength
  - 4. Complete Material list and specifications
  - 5. Assembly Plans and detail drawings
    - a. Sufficiently detailed to allow assembly with minimal manufacturer input
  - 6. Pre-assembly material handling and protection requirements
  - 7. Post assembly handling and protection requirements
  - 8. Manual for system recommended inspection and maintenance program
- D. Test Reports and Certificates:
  - 1. Concrete test reports taken daily during manufacturing.
  - 2. Concrete cylinder test results

- 3. Material, specifications, and certifications
- 4. Certify that materials are new and meet or exceed specification requirements.
- 5. Certify that the system meets or exceeds the specified performance requirements.
- 6. Certification that system was installed in accordance with the manufacturer's recommendations.
- E. Operations and Maintenance Manual: The Contractor shall furnish and deliver to the Owner three copies of complete data prepared by the manufacturer, covering details of operating and maintenance procedures. The manual shall include instructions, recommended frequencies of maintenance procedures, winterization procedures, and materials by brand name and specification. All maintenance data shall be on 8 1/2" by 11" sheets of paper bound together in a book with a protective cover.

#### 1.06 WORKMANSHIP

A. All work shall conform to reviewed shop drawings and project drawings and this specification. Construction details, finishing details and colors of the completed floating dock system shall be consistent throughout. Wood rub strips shall be neatly finished so that joints match and edges are flush with adjacent surfaces. Work shall be accurately set to established lines and elevations and securely fastened in place. Concrete deck shall be set level and with even spacing. Cutting, drilling and punching shall produce clean true lines and surfaces. Exposed surfaces of work shall have a smooth finish. Fixtures shall be installed in a neat and workmanlike manner

#### 1.07 PRODUCT HANDLING

A. Contractor shall be responsible for the shipment and associated handling of the concrete floatation units and associated assembly elements include the supervision of off-loading for all elements at a designated location on site. Contractor shall note that there is no on-site location for heavy lift equipment to be staged upland.

## **PART 2 PRODUCTS**

## 2.01 FLOAT LAYOUT

- A. The float shown on the drawings shall be supplied as a single monolithic concrete unit.
- B. The proposed dock and anchoring system are shown on the accompanying drawing(s). Noted are locations and sizes of the gangway and connections.
- C. To the maximum extent possible, the float manufacturer shall pre-assemble float system prior to shipping.

#### 2.02 PERFORMANCE

A. The float system shall function as a unified structure resisting twist and pitch, providing a suppressed conformance to wave forms. The float shall be unsinkable

even if structurally damaged. The Contractor shall be responsible for the float meeting the following minimum performance requirements to the approval of the Owner.

- 1. The Contractor shall warranty float materials, accessories, workmanship and performance for one full year from date of final acceptance of float installation.
- 2. The pile guides shall be designed to allow removal of the floats from the piles without removal of the piles.

## 2.03 FLOATING DOCK DESIGN AND LOADING REQUIREMENTS

## A. Float Requirements:

- 1. The float shall have the following characteristics:
  - a. Freeboard greater than 24 inches under dead loads including gangway, pile guides, fenders, and other permanently attached components.
  - b. Float shall be monolithic concrete unit and shall have no external structural waler system.
  - c. Float shall be designed for year-round use and exposure. Winter conditions shall assume all slips will be open.
  - d. The dimensions of the main float shall be as shown on the Contract Drawings.
  - e. Provision shall be made for future internal attachment of all utilities as shown on the Contract Documents. No utilities will be allowed on sides or underside of floats.
  - f. Float shall be Heavy Duty Concrete Floats and designed for vessel berthing based on minimum design conditions identified below.
  - g. All piles shall be as shown on the Contract Drawings. Design of complete system shall be based on pile locations shown on the Contract Drawings. The safe mooring loads on floats shall be based on design loads defined in Section 2.2.
  - h. All walking surfaces shall have non-skid design. Surfaces capable of having a slope of 1:33 or greater shall have a static coefficient of friction of 0.8 or greater when wet. Surfaces where the slope will always be less than 1:22 shall have a static coefficient of friction of 0.5 or greater when wet.
  - i. Contractor shall be responsible for coordination of all attachments including, but not limited to, aluminum gangway and wear plates.

## B. Site Environmental Conditions

1. Site Exposure: Site exposure is predominately from the Southeast. Float Manufacturer shall perform their own assessment of exposure conditions

- including fetch, water depth and wave refraction and reflection conditions as may be required for design. Assumptions shall be included with calculations.
- 2. Wind Conditions: Float Manufacturer shall make their own assessment of wind conditions for design of their float system, but minimum wind criteria shall be 70mph, 5-sec gust.
- 3. Wave Conditions: Float Manufacturer shall make their own assessment of wave conditions for design of their float system, but minimum wave criteria shall be as defined in this Section.
- C. Float System shall also be designed to withstand fatigue/torsional loads from wave action.
  - 1. All wave design shall be for  $H_{10}$  wave height.
- D. Floats shall be designed for "Survival" Load condition and "Normal" Load condition.
  - 1. Survival Condition:
    - a. Design for Survival Condition shall at minimum meet the following:
      - 1) Stress in any component of the system shall not exceed yield stress under survival load condition.
      - 2) Floating docks shall be able to withstand survival conditions with repairable damage.
      - 3) Survive, without failure, one million cycles of a 1-foot displacement over a 30-foot length. Direction of wave shall be applied in the direction that provides the worst-case loading to the system.
  - 2. Normal Condition:
    - a. Design for Normal Condition shall at minimum meet the following:
      - Stress in any component of the system shall not exceed design allowable stress under normal unfactored load condition.
      - 2) LRFD Design may be used with appropriate load factors.
- E. The following design loads shall be considered the minimum loads to which the floating docks will be submitted. The floats shall be able to resist these loads in any combination throughout the life of the structure. It is intended that the floats will remain in service year-round.
  - 1. Vertical loads
    - a. Dead Loads: Include actual weights of all permanent components including ramps, gangways, utilities, lights and all other placed and attached parts.
    - b. Uniformly distributed live loads:
      - 1) All docks shall be designed structurally for 100psf live load distributed uniformly over the entire concrete deck surface.

#### 2. Horizontal Loads

- a. Wind loads:
  - Year-round docking shall be based on a minimum design 70 knot wind, applied to full profile height of moored fishing vessels and floats.
  - 2) Summer restricted docking shall have a maximum allowable wind load of 40 knots.
- b. Wake/Wave loads: The design shall include the wave and wake loading criteria as defined below. Wave/wake loads shall include load on floats and vessels. The system must also be designed to withstand fatigue/torsional loads from wake/wave action.
- 1) Design wave Survival Condition

a) Wave Height: Hs = 3.0 feet, H10 = 4.0 feet

b) Wave Period: 2.5 sec

2) Design Wave – Normal Condition– 25-year return period a) Wave Height: Hs = 1.5 feet, H10 = 2.0 feet

b) Wave Period: 2.0 sec

3) Design Wave – Summer Docking Condition Only

a) Wave Height: Hs = 0.8 feet, H10 = 1.0 feet

b) Wave Period: 2.0 sec

## 3. Impact Loads

- a. The installed and connected floating system shall be designed to resist impact berthing-energy of the vessel sizes indicated on the Contract Documents.
- 4) Min vessel criteria shall be:
  - a) Summer Docking only:
    - 1. Single catamaran cruise ship, 242' in length
    - 2. Min weight of 1750 LT
    - 3. Maximum 40 knot wind condition
  - b) Year-round Docking:
    - 1. Two fishing vessels, 65' in Length
    - 2. Min weight of 150 LT
- 5) The installed and connected floating system shall be designed to resist minimum impact berthing-energy based of 2,000 ft-lbs. The resulting load should be applied at any angle to the longitudinal axis, at any edge of float location.
- 4. Current loads: Maximum current of 1 knot.
- 5. All horizontal loadings will be transmitted through the docking system to the anchor system. The anchor system will consist of steel piles and the connection to the concrete floats. These connection points represent a "hard point" in the dock system and must be accounted for in the design.

6. Pile guide and its support shall be designed to the maximum design load, but no less than a working load of 15,000 pounds.

#### F. Flotation Requirements

- 1. Dead Loads: Include actual weights of all permanent components including ramps, gangways, utilities, lights and all other placed and attached parts. All floating docks shall have freeboard equal to or greater than 24 inches under dead loads and shall have a level floating dock surface.
- 2. Uniformly distributed live loads:
  - Entire area of float deck including areas shadowed by gangways: 50 psf
  - b. Gangway uniformly distributed live load: 15 psf
  - c. All floating docks shall have a minimum of 8 inches of freeboard under above live loads.
- 3. Concentrated live load of 400 pounds:
  - a. Concentrated load shall be applied anywhere on the deck including along the edge while maintaining a minimum freeboard of 6 inches at any point.

#### 2.04 MATERIALS

A. Concrete for float shall be designed for the marine environment and shall have the following properties:

1. Cement Type: Type II ASTM C-150

2. Water / Cement Ratio: 0.40 max

3. Max cement replacement: Fly Ash 15% or Slag 25%

4. Compressive Strength: 6,000 psi at 28 days ASTM C-94

5. Air Entrainment: 5-7 % ASTM C-173

6. Lightweight Aggregate ASTM C-330

- B. Reinforcing Steel shall conform to ASTM A-615 Grade 60 and shall be galvanized in accordance with ASTM A-767. Steel mesh shall conform to ASTM A-185 and coated the same as the reinforcement steel. Steel mesh shall be flat sheets, rolled mesh is not allowed.
- C. Foam Core: Shall be closed cell expanded polystyrene (EPS) core and shall conform to ASTM C578. Type 1 C-578. The core shall have a density between 0.95 and 1.10 pcf and shall be made from material containing a maximum of 10 percent reground EPS. The EPS core will have maximum water absorption of 5% by volume in accordance with ASTM C-272. EPS foam billets shall have a maximum dimension tolerance of plus or minus 1/8". Exposed portions of the EPS and leveling billets (if required) shall be coated with a Poly Urea coat with a minimum thickness of 1.5 MM.

- D. Steel shall conform to ASTM A-36 unless otherwise noted. Steel shall be hot-dipped galvanized in accordance with ASTM A-123 and A-153 unless otherwise noted.
- E. Aluminum utilized within the system shall be suitable for use in the marine environment and be in the 6061-T6 alloys.
- F. Stainless Steel shall conform to Type 18-8 (300 Series), 316. Where 316 stainless is not readily available, 304 stainless steel may be used subject to approval by the Owner.

#### 2.05 CONCRETE PRECAST UNITS

### A. Concrete Testing

- All concrete testing shall be done in conformance to American Concrete Institute standards for structural concrete and shall include unit weight, slump tests, air entrainment tests and the taking and testing of concrete cylinders.
- 2. The manufacturer will maintain an ongoing daily concrete testing program and its associated records. All concrete testing shall be done under the direct supervision of ACI (American Concrete Institute) certified testing technicians. All concrete testing shall be done in accordance with the respective ASTM specifications.
- 3. A minimum of three (3) compressive test cylinders shall be taken daily per mix design being used that day. The cylinders will be cured in a temperature controlled water bath and tested by either an independent testing laboratory or by an on-site, Owner approved, certified testing facility. Test results will be submitted on one (1) each, seven (7) day; one (1) each, twenty-eight (28) day; and one (1) hold cylinder. Hold cylinders will be maintained at the casting facility for a period of five years.
- 4. All tests will be taken daily from the same material sample used for the compressive test cylinders.
- 5. All concrete testing shall be done at the Manufacturer's expense.

#### B. Fabrication

- 1. Concrete float shall be cast without bonded sections of mechanical connections, to form a single monolithic unit completely encasing a solid floatation core on a min of 5 sides; and with raceways and connection blockouts cased in concrete. Wall thickness shall be no less than 1 l/4". Final float dimensions shall be within 1/8" of design size.
- 2. No cold joints are permitted.
- 3. Floats will be fabricated according to methodology promulgated by the American Concrete Institute (ACI). The facility to provide adequate workspace, handling equipment, level casting surface and portable shelters for protection from adverse environmental conditions such as direct sunlight, wind, moisture, and freezing conditions.

- 4. Casting Forms to have structural members and shoring systems adequate to ensure floats are cast without distortion or deviations from design exceeding ± 1/8". Form surfaces to be smooth true and of sufficient load carrying ability to ensure dimensions will not deviate more than ±1/8" from design dimensions. Any rough edges, form marks, or defects such as protruding fins shall be cleaned, ground smooth or patched.
- 5. During the casting process the concrete shall be vibrated internally or externally in accordance with ACI -309 to ensure a smooth, dense finish.
- 6. Reinforcement shall extend through all concrete faces and have continuous steel at the corners of each face with adequate lap into each face.

## C. Concrete Finish

- The float deck surface shall be trowel finished with a steel trowel and a slipresistant finish applied transversely to the walking surface. Manufacturer shall establish finishing methods and procedures to ensure an even and consistent broom or screed finish on all deck surfaces.
- 2. All top edges shall have a chamfer or tooled edge 3/8" tooled radius with a minimum 1-1/2" wide smooth hard steel finished face around the perimeter. Outside top edges and corners shall be filed smooth.
- 3. All work shall be performed by persons experienced (minimum 5 years) and skilled in their trade.

## D. Utility Raceways

- 1. Utility raceways shall be provided internal to the concrete precast units for electrical, cable, water and fire suppression.
- 2. Each walkway shall have utility sleeves embedded in the concrete float modules as required for electrical and mechanical systems with appropriate access boxes embedded in the decks of the concrete modules.
- Access boxes with covers shall be installed where required and shall be in accordance with the local building code and building department requirements. Manufacturer shall submit proposed access boxes for approval prior to installation into floats.
- 4. Access boxes shall be flush with the walking surface and shall have a one (1) inch nominal concrete bottom with a smooth or light brushed, slip-resistant finish.
- 5. Access box covers shall be rated for minimum of 60 psf live load and all fasteners for lids shall be stainless steel.
- 6. Utility sleeves shall remain above the water surface under dead load conditions and shall be designed to facilitate installation, removal, and servicing of the utilities.
- 7. Access openings shall be provided at convenient locations as required for special access.

## E. Cracking and Surface Defects

- 1. All precast concrete float segments shall be free of structural cracks.
- 2. Contractor to provide adequate curing time to prevent cracking of weak concrete during product shipping. Lifting points shall be clearly identified.
- 3. Chips and cracks that exceed .02" wide will be patched with a non-shrink patching compound.
- 4. Rock pockets and or honeycombing exceeding 1" in diameter and or ¾" deep will be patched with a non-shrink grout of a color similar to the cured concrete.
- 5. Any pocket that exposes the reinforcing steel will be chipped out, cleaned, and filled with a non-shrink patching compound.

#### 2.06 CONNECTION OF CONCRETE UNITS

#### A. Float To Float Connectors

- 1. Float to float connections shall employ an elastomeric member which will not emit or transmit noise and be of non-wearing design. The member will prevent the transmission of concentrated, point or shock loads to adjoining floats.
- Complete connection assembly will be capable of maintaining undamaged the structural integrity of the floatation system while withstanding repeated wave induced movements, permitting connected pairs of floats to have a range of motion of at least 24 degrees when viewed broadside to the float in the elevation plane.
- Connections system shall be easily assembled and will allow the removal of one or more of the connection fasteners while keeping the remaining fasteners in place.
- 4. The Connection Assembly must be capable of transmitting float-to-float compressive and tensile loads equal to 4 times the float design dead weight without damage or degrading wear to the floatation system.

#### 2.07 FLOAT SYSTEM HARDWARE

- A. Pile guides: Float shall use internal pile guides having the following properties:
  - Pile guides shall be sized and provided based on proposed pile type and layout. Contractor shall be responsible for installed pile location and ensuring free movement of the complete system throughout the full range of water levels.
  - 2. Faces of pile guides at ends of floats shall be faced with solid rubber or other equivalent material (not wood) to prevent damage to vessels. Not required on end closest to pier.
  - 3. Pile guides shall be fabricated to provide minimal excess movement within pile guide and shall be adjustable to allow for variations in pile size and

- plumbness. The maximum clearance around the pile shall be as shown on the Contract Drawings.
- 4. Guides shall be made of steel and meet ASTM A36 and be hot dip galvanized after fabrication.
- 5. All contact faces with mooring pile shall utilize an Ultra High Molecular Weight (UHMW) polyethylene block with minimum 4 inch wearing face. Rollers will not be allowed. Blocking shall be installed with self-locking nuts or double-nutted to prevent loosening.
- 6. All hardware shall be heavy duty, min ½" thickness, suitable for the intended service and appropriate for a waterfront environment.
- 7. All hardware and fasteners shall be hot-dipped galvanized or stainless steel.
- 8. Pile Guide shall be sized for the anticipated pile size required.

# B. Mooring Cleats

- 1. All cleats shall be 24 inches in size and be hot-dipped galvanized. Cleats shall be equally spaced at a maximum 25-foot spacing and as shown on the Contract Drawings.
- 2. All tie-downs attached to timber shall be through-bolted to the float structure and have sufficient bolting and dock structure to withstand 1.5 times the rated strength capacity of the hardware.
- 3. All tie-downs and hardware shall be of hot dip galvanized or stainless steel.

#### C. Float Fenders

- 1. Heavy Duty Fender
  - a. Complete Perimeters of float system shall have fender protection.
  - b. Fendering shall be DURAMAX 100 Series DB-115 or equal with a 3-3/4" high type fender and weigh a minimum of 4.5 pounds per lineal foot and made from a fungus and UV resistant PVC compound.
  - c. Color shall be light gray or white.
  - d. Fendering shall be attached with lag or expansion bolts with washers spaced as required to prevent tearing separation from float by vessel movements and berthing maneuvers.
  - e. Corner bumpers shall be mounted at all corners with stainless steel screws. Corners shall mate with the fendering as much as practical and made from a fungus and UV resistant PVC compound.

## D. Float transitions plates

Transition plates between float sections shall be installed to eliminate all
gaps in the walking service. Installation shall be such to allow secure
attachment while allowing float movement during extreme wave conditions
without binding or damage.

- 2. Transition plates shall be installed where differences in float elevation occurs.
- 3. Transitions shall be for full width of walking surface and designed for 50 psf live loading and 300-pound point loading without significant deflection.
- 4. Surface of plates shall be maximum 1:20 slope and have non-skid surfacing meeting specification requirements.

#### 2.08 SPARE PARTS AND SYSTEM MANUALS

A. Manufacturer shall provide two (2) sets of system assembly and installation manuals for the float system(s).

#### **PART 3 EXECUTION**

#### 3.01 SYSTEM COMPONENTS

A. The minimum dimensions and layout of the floating dock system are shown on the Contract Drawings. The Contractor shall be responsible for a system, which conforms to the dimensions and layout indicated on the drawings, is serviceable for the intended use, and conforms to all pertinent provisions of these Specifications.

## 3.02 TRANSPORT AND DELIVERY

- A. Transportation and handling shall be done in accordance with manufacturer's predetermined methods. Damage as a result of transportation and handling shall be the responsibility of the Manufacturer to repair and/or replace.
- B. Float System Component Identification
  - 1. Manufacturer shall develop and provide a full system of component identification system.
  - 2. System shall be established within shop drawings for fabrication and for assembly drawings.
  - 3. Each delivery shall have all items clearly identified and easily related to assembly documents. Where similar parts can be mistaken, warnings should be provided.
  - 4. Whenever possible, every part identification should include the element with which it is associated.

## C. Delivery and Storage

1. System components shall be stored off the ground in a manner to prevent damage by weather. All hardware and packaging of parts shall be in weather protected containers.

#### 3.03 CONSTRUCTION PHASE SUPPORT AND CERTIFICATION

A. Manufacturer shall provide support to Owner and Installation Contractor as required to:

- 1. Ensure system assembly and installation is in conformance with Manufacturer's recommended procedure.
- 2. Ensure no damage has occurred during assembly and installation.
- 3. Provide certification that system is fully installed to manufacturer's requirements.
- 4. Provide assistance to Installation Contractor in a manner to prevent delays.
- 5. Coordinate with Owner regarding installation issues not in conformance for assembly installation requirements.
- 6. Resolve related installation issues.

#### 3.04 INSTALLATION

- A. The system shall be installed in accordance with the approved shop drawings and manufacturer recommendations.
- B. All floats shall be installed to straight alignment as shown on the plans.
- C. No part of the docks shall slope more than 1 inch in 10 feet over length or width at the time of installation and shall not slope more than 1.5 inches in 10 feet over the length or width at the end of the warranty period.

#### 3.05 DEFECTIVE WORK

A. Float damaged or constructed in a manner not meeting specifications or site conditions shall be modified or replaced as directed at no additional cost to the Owner.

#### PART 4 MEASUREMENT AND PAYMENT

## 4.01 METHOD OF MEASUREMENT

A. Measurement of CONCRETE FLOATING DOCKS shall be measured by the Contract Unit Price LUMP SUM.

#### 4.02 METHOD OF PAYMENT

A. Payment for CONCRETE FLOATING DOCKS shall be made by the Contract Unit Price LUMP SUM, complete in place. This price and payment shall constitute full compensation for all design, labor, equipment, materials, preparation, testing, transportation, survey, and supervision for the satisfactory supply and installation of all items under this section, complete in place, including, but not limited to, precast reinforced concrete float units, connections, utility trenches, ducts, fendering, pile guides, transition plates, gangway wear/guide plates, taking delivery of and installation of owner supplied gangway, cleats, fasteners, hardware, utility supports and connections, and other attachments, disposal of surplus materials and any other incidentals necessary to complete the work specified herein and as shown on the Contract Documents.

# 4.03 PAYMENT ITEMS

ITEM DESCRIPTION UNIT

35 51 00-01 Concrete Floating Docks LS

**END OF SECTION** 

# ATTACHMENT 2 CONSTRUCTION DRAWINGS

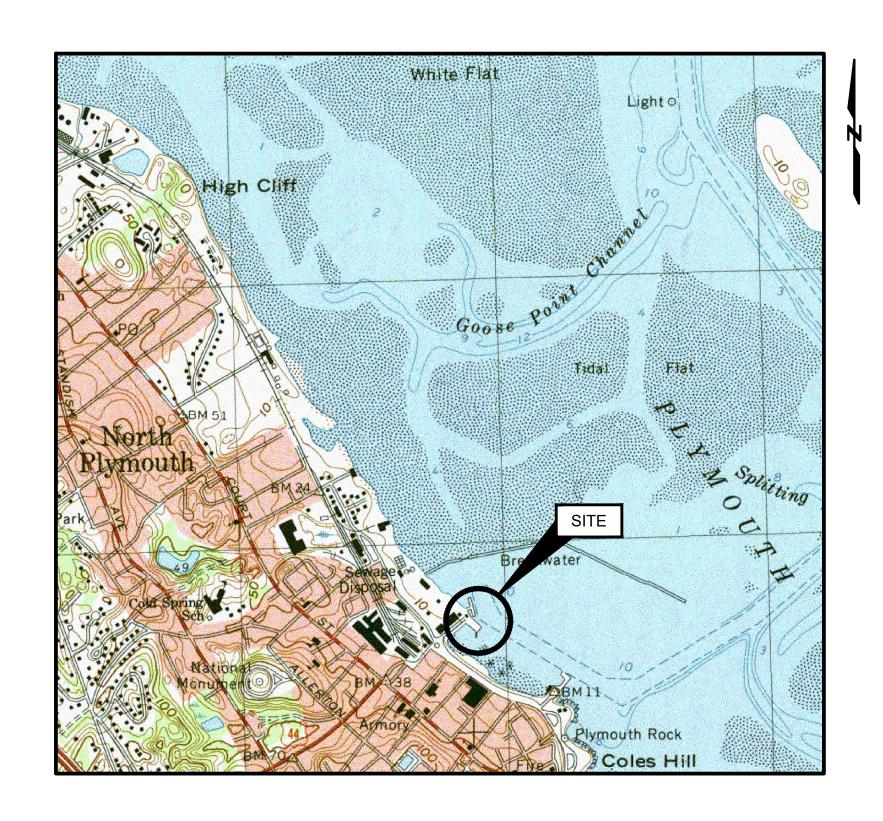
# PLYMOUTH TOWN WHARF REPAIRS AND FLOAT EXPANSION

PLYMOUTH TOWN WHARF
PLYMOUTH, MA
OCTOBER 2025



STATE or COUNTY MAP

(NOT TO SCALE)



SITE LOCATION MAP
(NOT TO SCALE)

PREPARED FOR:

TOWN OF PLYMOUTH 26 COURT STREET PLYMOUTH, MA PREPARED BY:

GEI CONSULTANTS, INC. 124 GROVE STREET FRANKLIN, MA 02038 (774)277-6001



#### SHEET INDEX

# DRAWING NO. TITLE

G-001 COVER SHEET

GENERAL NOTES & LEGEND

#### TOWN WHARF REPAIRS

/-101 EXISTING CONDITIONS PLAN

V-301 EXISTING SECTIONS

C-110 CONTRACTOR STAGING AND SITE PREPARATION PLAN

S-101 PILE CAP REPAIR PLAN
S-102 SUBSTRUCTURE REPAIRS
S-301 PROPOSED REPAIR SECTIONS
S-501 REPAIR DETAILS - SHEET 1 OF 4
S-502 REPAIR DETAILS - SHEET 2 OF 4

REPAIR DETAILS - SHEET 3 OF 4
REPAIR DETAILS - SHEET 4 OF 4

FLOAT DETAILS

#### FLOAT EXPANSION

C-01 SITE PLAN
C-02 PIER ELEVATION

DWG. NO.

G-001

10/10/2025 BID DOCUMENTS

RJT

DATE

ISSUE/REVISION

DWG. NO.

G-001

SHEET NO.

10/10/2025

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF GEI CONSULTANTS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF GEI CONSULTANTS.

AMERICAN WELDING SOCIETY (AWS)

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)

AMERICAN CONCRETE INSTITUTE (ACI)

CONCRETE REINFORCING STEEL INSTITUTE (CRSI)

MASSACHUSETTS STATE BUILDING CODE

THE COMMONWEALTH OF MASSACHUSETTS. DEPARTMENT OF PUBLIC WORKS "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES" (1988 EDITION, 15 JUNE 2012 SUPPLEMENTAL SPECIFICATIONS) (MHD), & 14 JUNE 2013 INTERIM SUPPLEMENTAL SPECIFICATIONS (MHD)

#### OSHA REQUIREMENTS:

PURSUANT TO M.G.L. c.30, §39S, ANY PERSON SIGNING A CONTRACT TO WORK ON A PUBLIC BUILDING OR PUBLIC WORKS PROJECT ESTIMATED TO COST MORE THAN \$10,000, MUST CERTIFY UNDER THE PAINS AND PENALTIES OF PERJURY THAT ALL EMPLOYEES EMPLOYED ON THE WORKSITE, OR IN WORK SUBJECT TO THE BID, HAVE SUCCESSFULLY COMPLETED AT LEAST TEN HOURS OF OSHA APPROVED TRAINING. PROOF OF OSHA CERTIFICATION OF ALL WORKERS ONSITE WILL BE REQUIRED BY THE CITY PRIOR TO THE START OF WORK.

#### SURVEY CONTROL AND BASELINES:

- 1. TOPOGRAPHIC DATA LOCAL TO T-WHARF SHOWN HEREON WAS COLLECTED ON JANUARY 19, 2006 BY GEI AND ONLY REFLECTS CONDITIONS AS THEY EXISTED DURING THE TIME OF THE SURVEY. ADDITIONAL TOPOGRAPHIC DATA PROVIDED BY TOWN OF PLYMOUTH
- 2. COORDINATES ARE BASED ON MASSACHUSETTS (MAINLAND) STATE PLANE COORDINATE SYSTEM (NAD 83) AND ARE EXPRESSED IN FEET.
- 3. ELEVATIONS ARE SHOWN IN FEET AND TENTHS BASED ON MEAN LOW WATER (MLW) DATUM.
- 4. DATUM CONVERSION TO MLW IS BASED ON A CONVERSION OF +5.43 NAVD88 TO MLW AS PUBLISHED IN THE NOAA BENCHMARK DATA SHEETS FOR PLYMOUTH.
- 5. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY, BASED ON UTILITY COMPANY RECORDS AND LOCATION OF OBSERVABLE FEATURES. GEI MAKES NO WARRANTY OR GUARANTEE TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES.
- 6. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN PROJECT BASELINES AND CONTROL AS REQUIRED TO ENSURE ACCURATE LOCATION OF ALL ELEMENTS OF THE PROJECT

#### SITE ACCESS AND STAGING AREAS:

- 1. CONTRACTOR STAGING AREA SHALL BE LOCATED WITHIN THE PROJECT LIMITS AS SHOWN ON SHEET C-110.
- 2. CONTRACTOR TO MAINTAIN ACCESS TO TOWN PIER AT ALL TIMES. AREA SHALL BE KEPT CLEAR AT ALL TIMES UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE ENGINEER.
- 3. NO MATERIALS OR EQUIPMENT SHALL BE STORED OUTSIDE LIMITS SHOWN UNLESS APPROVED BY ENGINEER.
- 4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY. CONTRACTOR SHALL PROVIDE CHAIN LINK FENCING AROUND PERIMETER OF WORK AREA AND STAGING AREA TO PREVENT PUBLIC ACCESS AND PROVIDE PUBLIC SAFETY. THE FENCE SHALL BE A MINIMUM OF 6' HIGH AND CONSTRUCTED OF HDG STEEL CHAIN LINK WITH POSTS AT 8' ON CENTER. FENCE SHALL BE SUPPORTED BY CONCRETE BLOCKS TO RECEIVE POSTS.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL AND STATE REGULATIONS.
- 6. AREAS OUTSIDE THE LIMITS OF THE WORK DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
- ADDITIONAL COST TO THE OWNER.

7. ALL EXISTING PAVEMENT DAMAGED WITHIN THE PROJECT LIMITS SHALL BE REPAIRED AT NO

- 8. THE CONTRACTOR SHALL STAGE AND SEQUENCE CONSTRUCTION TO ENSURE STABILITY OF EXISTING STRUCTURES.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING STRUCTURES TO
- 10. CONTRACTOR SHALL SUBMIT DETAILS OF ALL MATERIALS OR EQUIPMENT SHOWING COMPLIANCE WITH ABOVE LIMITS FOR APPROVAL PRIOR TO LOADING.
- 11. CONTRACTOR SHALL NOTE HIGH VOLUME OF VEHICULAR TRAFFIC IN THESE AREAS AND SHALL NOT BLOCK OR DISRUPT FLOW WITHOUT PRIOR APPROVAL FROM THE TOWN.

#### SITE PREPARATION

- CONTRACTOR SHALL INSTALL ALL SIGNAGE PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES INCLUDING OWNER PROJECT SIGNAGE. DEP FILE NUMBER AND FEDERAL AND STATE MANDATED WORK PLACE SIGNAGE.
- CONTRACTOR SHALL HAVE IN-PLACE TRASH AND SANITARY FACILITIES FOR THE WORK PLACE.
- 3. EXISTING PAVEMENT, STRUCTURES AND AMENITIES WITHIN THE PROXIMITY OF THE WORK SHALL BE PROTECTED TO PREVENT ACCIDENTAL DAMAGE BY CONSTRUCTION ACTIVITIES.
- 4. DISCOVERY OF INCONSISTENT SITE INFORMATION OR CONDITIONS ARE TO BE IMMEDIATELY CONVEYED TO THE OWNER AND ENGINEER PRIOR TO COMMENCING OR CONTINUING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY DIG-SAFE PRIOR TO COMMENCING ANY WORK ON SITE.
- 6. LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF UTILITIES AS MAY BE REQUIRED. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES OCCURRING AS A RESULT OF THE CONTRACTOR'S FAILURE TO LOCATE AND PROTECT UNDERGROUND UTILITIES. ALL REPAIRS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
- 7. CONTRACTOR SHALL MAINTAIN AND PROTECT ALL EXISTING UTILITIES AND DRAINAGE AT ALL TIMES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AND RESTORE TO THE PRE-EXISTING CONDITION AT NO COST TO THE OWNER.

- 8. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND BE RESPONSIBLE FOR PAYING ANY FEES OR COSTS FOR ANY POLE OR UTILITY ALTERATION OR RELOCATION.
- 9. CONTRACTOR SHALL SUPPLY AND INSTALL APPROVED FILTER FABRIC IN CATCH BASINS AND COVER AS REQUIRED TO PREVENT CONSTRUCTION RELATED FILL OR OTHER MATERIAL FALLING INTO CATCH BASIN
- 10. CONTRACTOR SHALL CLEAN OUT ALL CATCH BASINS AND OTHER DRAINAGE STRUCTURES ON COMPLETION OF WORK.
- 11. CONTRACTOR SHALL SUPPLY ALL NECESSARY TEMPORARY UTILITIES FOR CONSTRUCTION INCLUDING WATER, POWER, LIGHTING, DATA AND TELEPHONE
- 12. CONTRACTOR SHALL READ AND UNDERSTAND ALL REGULATORY CONDITIONS ASSOCIATED WITH THE PROJECT AND SHALL COMPLY WITH ALL ENVIRONMENTAL REQUIREMENTS AND PERMIT CONDITIONS
- 13. CONTRACTOR SHALL CONFINE ALL OTHER TEMPORARY STOCKPILES OF EXCAVATED MATERIAL OR IMPORTED FILL USING HAY BALES AND FILTER FABRIC IN CONFORMANCE WITH PERMIT CONDITIONS
- 14. CONTRACTOR SHALL PROVIDE A CONFINED CONCRETE TRUCK WASHDOWN AREA AT A LOCATION TO BE APPROVED BY THE ENGINEER. WASHDOWN AREA SHALL INCLUDE PROTECTION TO PAVEMENT, A PERIMETER WALL AND A FILTER FABRIC LINER. NO RUNOFF CONTAINING CEMENT OR OTHER SUSPENDED SOLIDS WILL BE PERMITTED. ALL MATERIALS SHALL BE COMPLETELY REMOVED ON COMPLETION OF CONSTRUCTION AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION.
- 15. CONTRACTOR SHALL PROVIDE CONTAINMENT FOR ALL WORK IN OR OVER WATER. BOTTOM WEIGHTED SILT CURTAINS SHALL BE PROVIDED TO ENCLOSE WORK LIMITS. SILT CURTAINS SHALL BE INSTALLED PRIOR TO COMMENCEMENT AND REMOVED AFTER COMPLETION OF WORK IN EACH AREA. SILT CURTAIN INSTALLATION AND PHASING SCHEDULE SHALL BE SUBMITTED BY CONTRACTOR. SILT CURTAINS SHALL BE MAINTAINED IN PROPER WORKING CONDITION DURING CONSTRUCTION.
- 16. CONTRACTOR SHALL PROVIDE SILT FENCE BARRIERS OR SIMILAR PROTECTION AROUND ALL OPEN EXCAVATIONS.

#### **DEMOLITION:**

1. ALL EXCESS MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR & BE DISPOSED OF OFF SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND TOWN REGULATIONS AND REQUIREMENTS.

#### CONCRETE:

- 1. ALL REINFORCEMENT SHALL BE NEW DEFORMED STEEL BARS, GRADE 60 CONFORMING TO ASTM A615, EPOXY-COATING CONFORMING TO ASTM A775/A775M
- 2. REINFORCEMENT ACCESSORIES SHALL BE DIELECTRIC COATED STEEL OR APPROVED PLASTIC
- 3. CONCRETE SHALL HAVE THE FOLLOWING SPECIFICATIONS:
- MINIMUM COMPRESSIVE STRENGTH: 5,000 PSI AT 28 DAYS
- AIR ENTRAINMENT SHALL BE MAINTAINED AT 4.5% 7.5%
- MAXIMUM SIZE OF AGGREGATE SHALL BE 3/4 INCH.
- WATER TO CEMENT RATIO SHALL BE 0.40 UNLESS OTHERWISE NOTED.
- CEMENT SHALL MEET ASTM C150, TYPE II
- MIN. CEMENT PER CY SHALL BE 660LBS
- GROUT SHALL BE A HIGH STRENGTH, NON-SHRINK GROUT WITH SALTWATER RESISTANCE, SUCH AS FIVE STAR SPECIAL GROUT 120 OR EQUIVALENT.

#### **HEAVY TIMBER**

- 1. UNLESS OTHERWISE SPECIFIED, ALL TIMBER TO BE USED SHALL BE NO. 2 SOUTHERN PINE AS GRADED BY SPIB AND WITH DESIGN VALUES PER NFPA NATIONAL DESIGN SPECIFICATION OR THE EQUIVALENT FOR DOUGLAS FIR AS GRADED BY WCLIB AND WWPA.
- ALL TIMBER SHALL BE NEW AND SUPPLIED WITH NOMINAL DIMENSIONS UNLESS OTHERWISE NOTED. TIMBER SHALL BE FINISHED S4S UNLESS NOTED OTHERWISE.
- 3. ALL NEW TIMBER MEMBERS TO WHICH THE PUBLIC MAY BE EXPOSED SHALL BE TREATED WITH ALKALINE COPPER QUATERNARY (ACQ) IN ACCORDANCE WITH AWPA STANDARDS TO A RETENTION OF 0.6 LBS/CU.FT OR EQUAL APPROVED
- 4. MISC. HARDWARE: ALL RELATED HARDWARE SHALL BE FASHIONED FROM STEEL AND HDG AFTER FABRICATION AND IN ACCORDANCE WITH REQUIREMENTS OF ASTM A123, AND/OR A153. ALL THREADED RODS, BOLTS, FASTENERS AND WASHERS FOR TIMBER CONNECTIONS SHALL BE HOT DIP GALVANIZED AND SHALL CONFORM TO ASTM A307 OR EQUAL APPROVED.
- 5. ALL WASHERS FOR USE IN TIMBER CONNECTIONS SHALL BE HOT DIP GALVANIZED DOCK WASHERS, UNLESS NOTED OTHERWISE.

#### TIMBER PILES:

- UNLESS OTHERWISE SPECIFIED. ALL TIMBER BEARING PILES SHALL BE CLEAN-PEELED AND TREATED WEST COAST DOUGLAS FIR OR SOUTHERN YELLOW PINE IN CONFORMANCE WITH ASTM
- 2. UNLESS OTHERWISE SPECIFIED, ALL FENDER PILES SHALL BE TROPICAL GREENHEART IN CONFORMANCE WITH ASTM D25.
- 3. ALL PILES SHALL BE INSTALLED TO THE CRITERIA SHOWN IN THE CONTRACT DOCUMENTS AND DRAWINGS AND THE FOLLOWING:
  - -BEARING PILES DRIVE TO MIN 15 TON CAPACITY
  - -FENDER PILES DRIVE TO -35 TIP EL.

#### **MISCELLANEOUS METALS:**

- UNLESS NOTED OTHERWISE, ALL METAL BRACKETS, PLATES, ROLLED SHAPES, ETC SHALL BE HOT DIP GALVANIZED AND SHALL COMPLY WITH ASTM A572 GRADE 50.
- 2. ALL EMBEDDED THREADED ROD ANCHORS SHALL BE ANCHORED USING EPOXY ADHESIVE COMPLYING WITH THE SPECIFICATIONS UNLESS NOTED OTHERWISE, MINIMUM EMBEDMENT SHALL COMPLY WITH MANUFACTURERS RECOMMENDATIONS FOR PROVIDING ANCHORAGE IN 3000 PSI CONCRETE WITH A WORKING LOAD CAPACITY AT LEAST EQUAL TO THE WORKING LOAD TENSION CAPACITY OF THE EMBEDDED ROD.
- 3. METAL DECKING SHALL BE GRADE 50 STEEL G90 GALVANIZED IN CONFORMANCE WITH ASTM A653. PROFILE SHALL BE 2" NOMINAL HEIGHT WITH A MINIMUM EFFECTIVE SECTION MODULUS OF 0.620 IN3/FT WIDTH AND A MINIMUM EFFECTIVE MOMENT OF INERTIA OF 0.700IN4/FT WIDTH. METAL DECKING SHALL HAVE A PROFILE SPACING OF 12" AND BE SUPPLIED IN MINIMUM 36" WIDE INTERLOCKING PANELS.

- 1. EARTHWORK MATERIALS TO MEET THE FOLLOWING STANDARDS:
- GRAVEL BORROW TYPE B MHD M1.03.0
- DENSE GRADED CRUSHED STONE FOR SUBBASE MHD M2.01.7
- 3/4" CRUSHED STONE
- 2. ORDINARY FILL BORROW SHALL BE EXISTING SUITABLE MATERIAL FOR REUSE WITH MAXIMUM 4"
- 3. GEOGRID SHALL BE MIRIGRID 8XT AS MANUFACTURED BY TENCATE OR APPROVED EQUAL.
- GEOTEXTILE SHALL BE FW500 AS MANUFACTURED BY TENCATE OR APPROVED EQUAL.

- 1. ALUMINUM SHAPES SHALL MEET THE SPECIFICATIONS OF ALUMINUM ALLOY 6061-T6.
- 2. ALL NUTS, BOLTS AND WASHERS SHALL BE STAINLESS STEEL MEETING ASTM F593 TYPE 316 ALLOY. NUTS SHALL BE SELF LOCKING.
- 3. GANGWAY CONNECTION PINS AND SLEEVES SHALL BE STAINLESS STEEL CONFORMING TO ASTM A269 TYPE 316 ALLOY.
- 4. THE DECKING SHALL BE NON-SKID WITH EITHER A RAISED RIB PROFILE WITH THE RIBS NO HIGHER THAN  $\frac{1}{4}$ " AND PERPENDICULAR TO THE FLOW OF TRAFFIC, OR COVERED WITH A UNIFORM CARBORUNDUM SURFACE. SURFACES SHALL HAVE A STATIC COEFFICIENT OF FRICTION OF 0.5 OR GREATER WHEN WET.

#### CONCRETE FLOATS:

- FLOTATION DESIGN LOAD CRITERIA
- 50 PSF FOR FLOTATION-MIN 8" FREEBOARD
- 400 LBS CONCENTRATED LOAD MIN 6" FREEBOARD
- 2. UNLESS OTHERWISE SPECIFIED, ALL CONCRETE SHALL BE 6000PSI.
- 3. ALL REINFORCEMENT SHALL BE NEW DEFORMED STEEL BARS, GRADE 60 CONFORMING TO ASTM A615, EPOXY-COATING CONFORMING TO ASTM A775/A775M OR HOT DIPPED GALVANIZED CONFORMING TO A-767 POST BENDING OR ASTM A-1094.
- 4. PILE GUIDES SHALL BE DESIGNED BY THE FLOAT MANUFACTURER, FOR A MINIMUM LOAD OF
- 5. CLEAT, FENDER, AND OTHER FITTINGS INSTALLATION DETAILS PER THE FLOAT MANUFACTURER

100 PSF (STRUCTURAL)

#### DESIGN CRITERIA - LIVE LOADS:

ALUMINUM GANGWAYS

100 PSF

FLOATS

### FLOAT AND MOORING DESIGN CRITERIA

100 PSF FOR STRUCTURAL DESIGN

- 1. VERTICAL LOADING
- NOMINAL FREEBOARD UNDER ALL DEAD LOADS INCLUDING GANGWAYS, ETC SHALL BE 24 LIVE LOADS
- SEE SPECIFICATION AND BELOW FOR FLOTATION LOAD REQUIREMENTS
- 2. WIND LOADS
  - WIND:70 KNOT, 5 SEC GUST
- MIN VESSEL PROFILE HEIGHT = 15% (FINGER LENGTH PLUS 5 FEET 3. SURVIVAL WAVE LOADING
- WIND:70 MPH
- H10 = 4', PERIOD = 2.5 SEC.
- ALL WAVE APPLIED PERPENDICULAR TO FLOAT
- 4. NORMAL WAVE LOADING
- WIND:70 MPH
- H10 = 2', PERIOD = 2.0 SEC.

ALL WIND AND WAVE LOADS SHALL BE APPLIED WITH VESSELS IN PLACE

#### LEGEND:

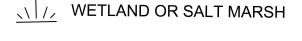
•— GATE

- © ELECTRIC MANHOLE
- DRAIN MANHOLE
- SEWER MANHOLE **CATCH BASIN**
- FIRE HYDRANT
- GAS VALVE
- WATER VALVE
- LIGHT POLE  $\alpha$ UTILITY POLE
- CONTROL POINT IRON PIN
- CONCRETE BOUND

DREDGE SAMPLE



WATER MARK

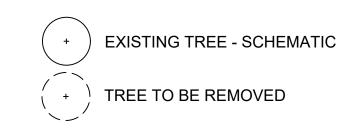


CJL COASTAL JURISDICTION LINE



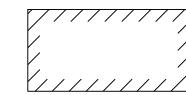
CONTROL POINT

EXISTING TREE





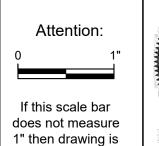
**DEBRIS** 



MLW

BUILDING

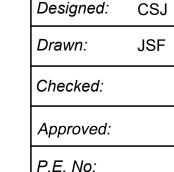
DATUM AND TIDE TABLE 100 YEAR FLOOD +16.57 +11.70 HTL MHW +9.75 NAVD88 +5.43 +4.57 NGVD 29



not original scale.







GEl Project 2203521





26 COURT ST.

PLYMOUTH, MA

02360

PLYMOUTH TOWN WHARF REPAIRS AND FLOAT **EXPANSION** 

PLYMOUTH, MA

0 | 10/10/2025 | BID DOCUMENTS RJT NO APP DATE ISSUE/REVISION

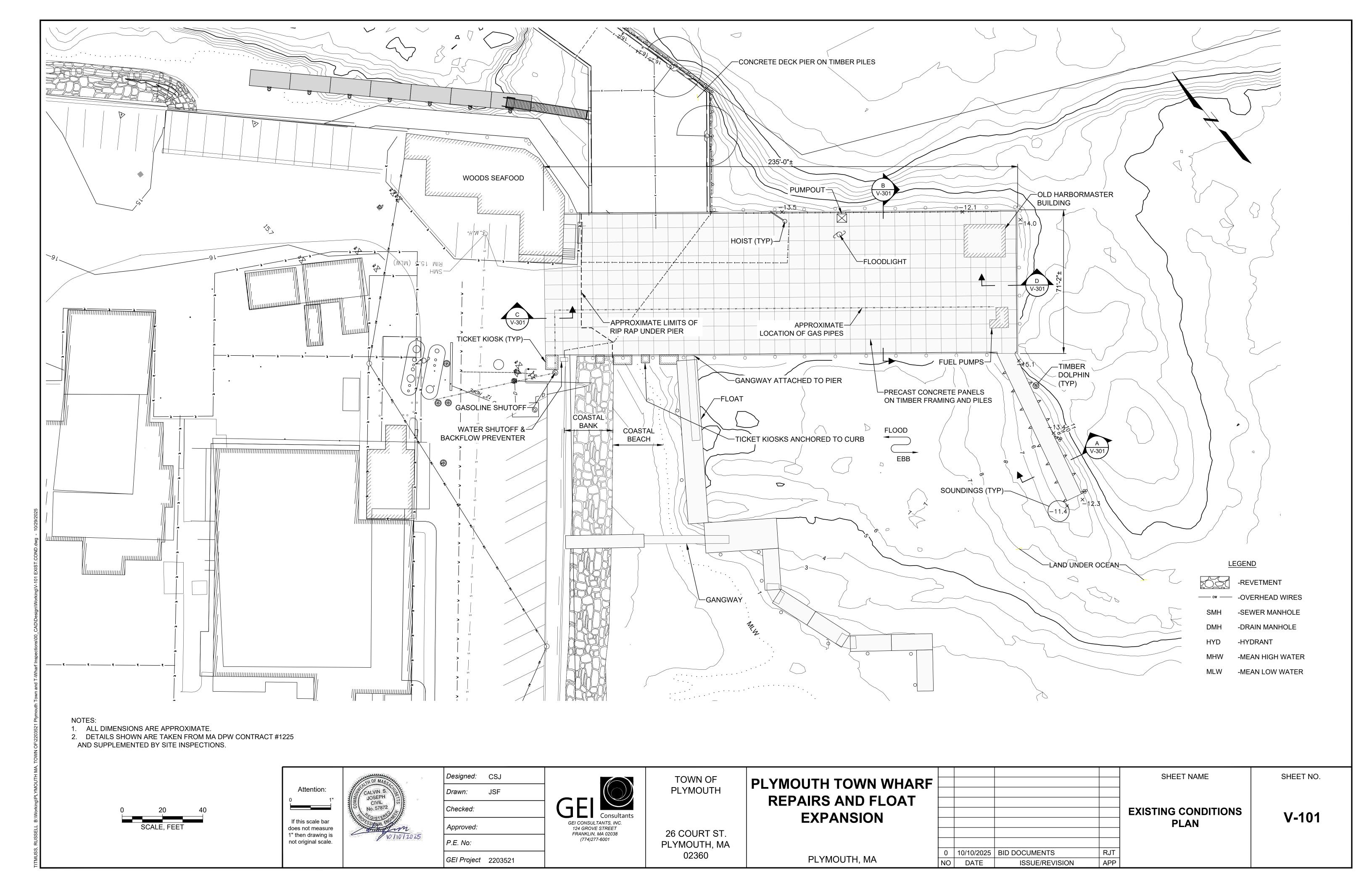
**GENERAL NOTES &** LEGEND

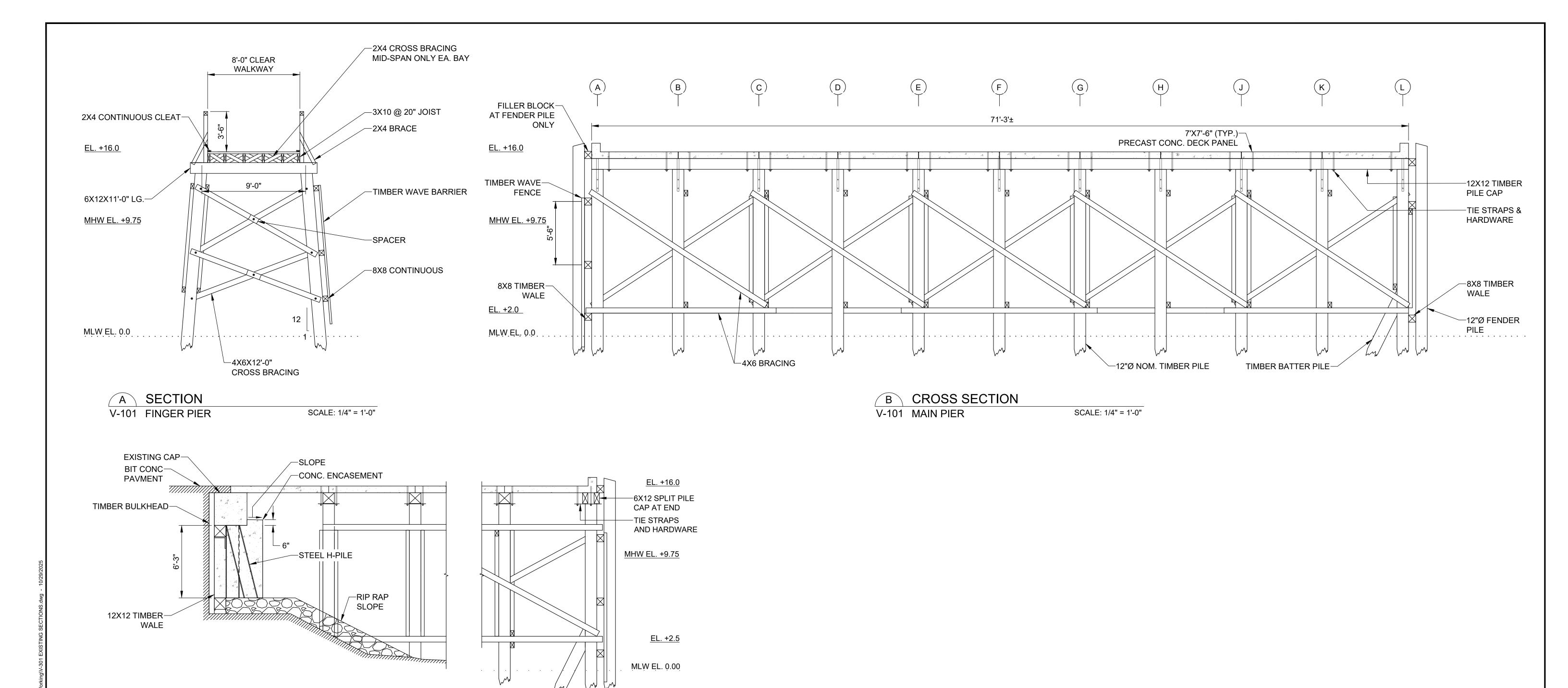
SHEET NAME

SHEET NO.

0.0

G-002





C SECTION
V-101 INSHORE BULKHEAD

D SECTION
V-101 OUTSHORE END

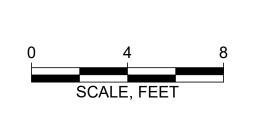
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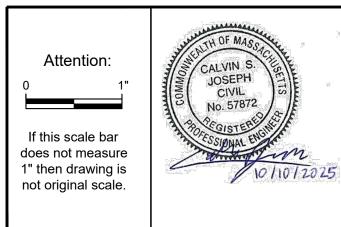
#### NOTES:

- ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- HARDWARE, FASTENERS, BRACKETS AND UTILITIES NOT SHOWN FOR CLARITY.
   CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS AND SUPPORTS AND PROVIDE TEMPORARY SUPPORTS IN INC. SSARY ANY DERMANENT SUPPORTS.
- PROVIDE TEMPORARY SUPPORT IF NECESSARY. ANY PERMANENT SUPPORTS REMOVED TO COMPLETE THE WORK SHALL BE REPLACED ON COMPLETION.

  4. TICKET KIOSKS ON WHARF ARE NOT SHOWN FOR CLARITY. CONTRACTOR SHALL SHOWN FOR CLARITY.

4. TICKET KIOSKS ON WHARF ARE NOT SHOWN FOR CLARITY. CONTRACTOR SHALL REMOVE AND PROVIDE TEMPORARY SUPPORT AS NEEDED AND REATTACH PRIOR TO COMPLETION OF WORK.





SCALE: 1/4" = 1'-0"

Designed: CSJ

Drawn: JSF

Checked:

Approved:

P.E. No:

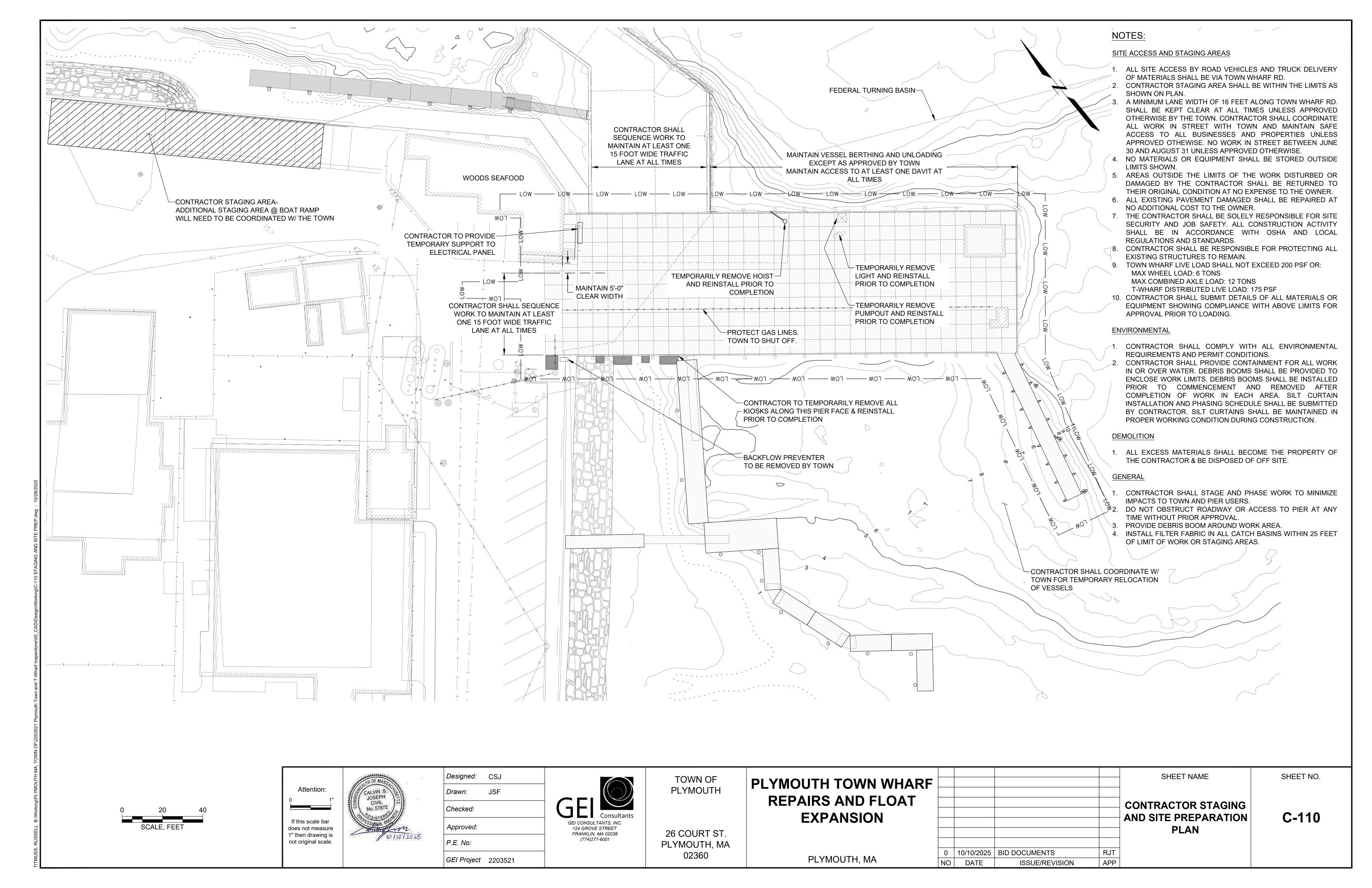
GEI Project 2203521

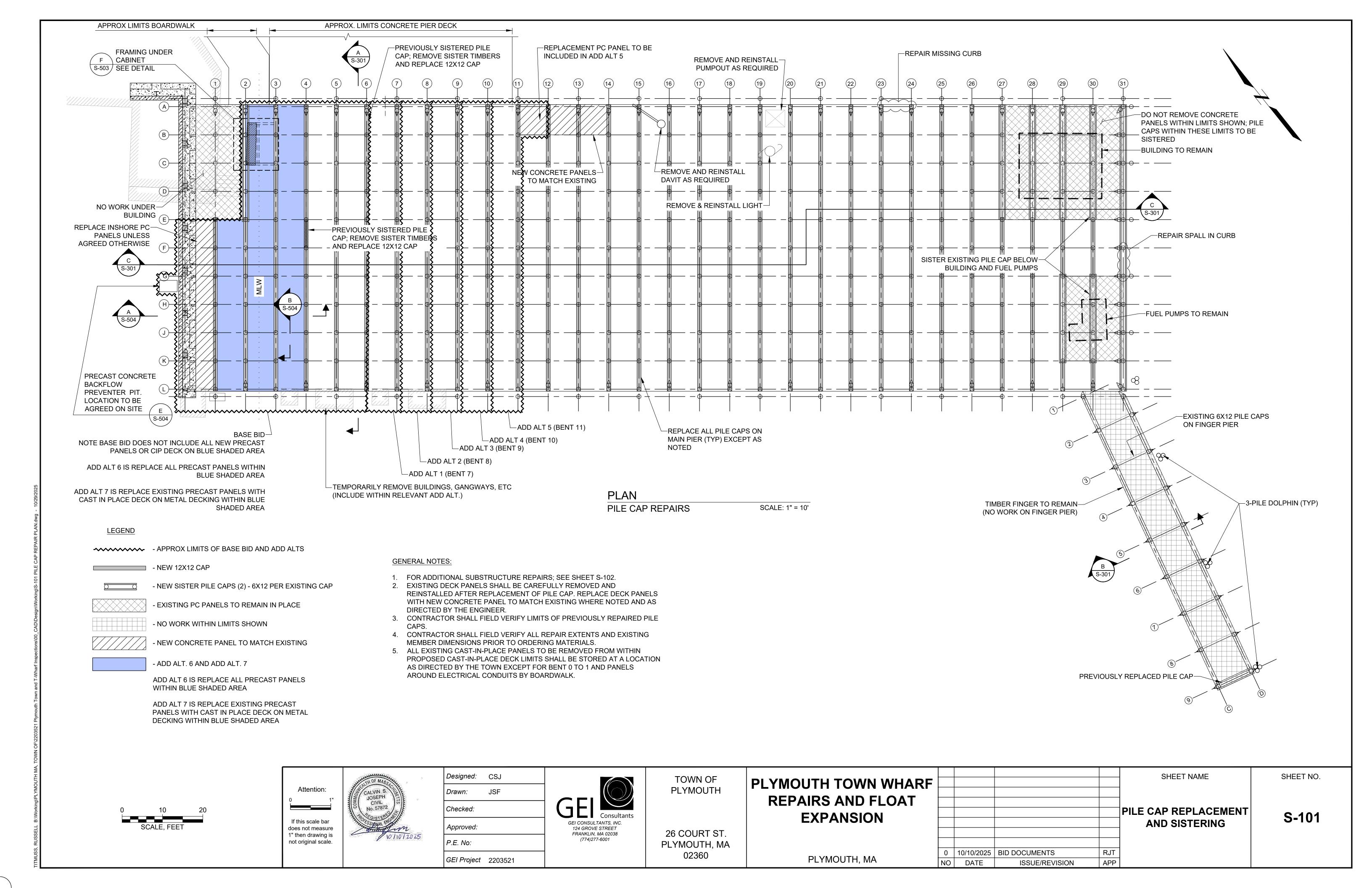


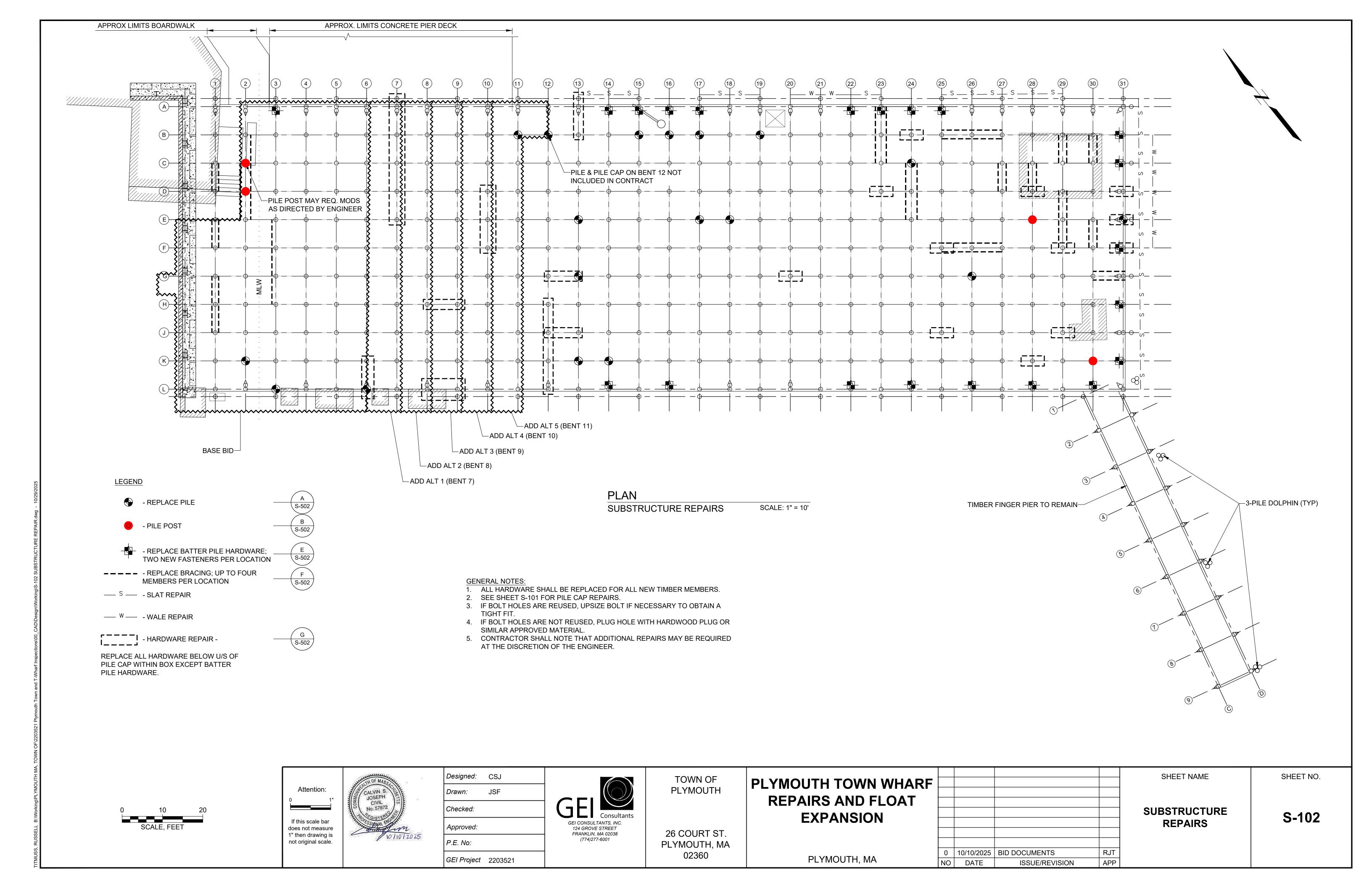
PLYMOUTH TOWN WHARF
REPAIRS AND FLOAT
EXPANSION

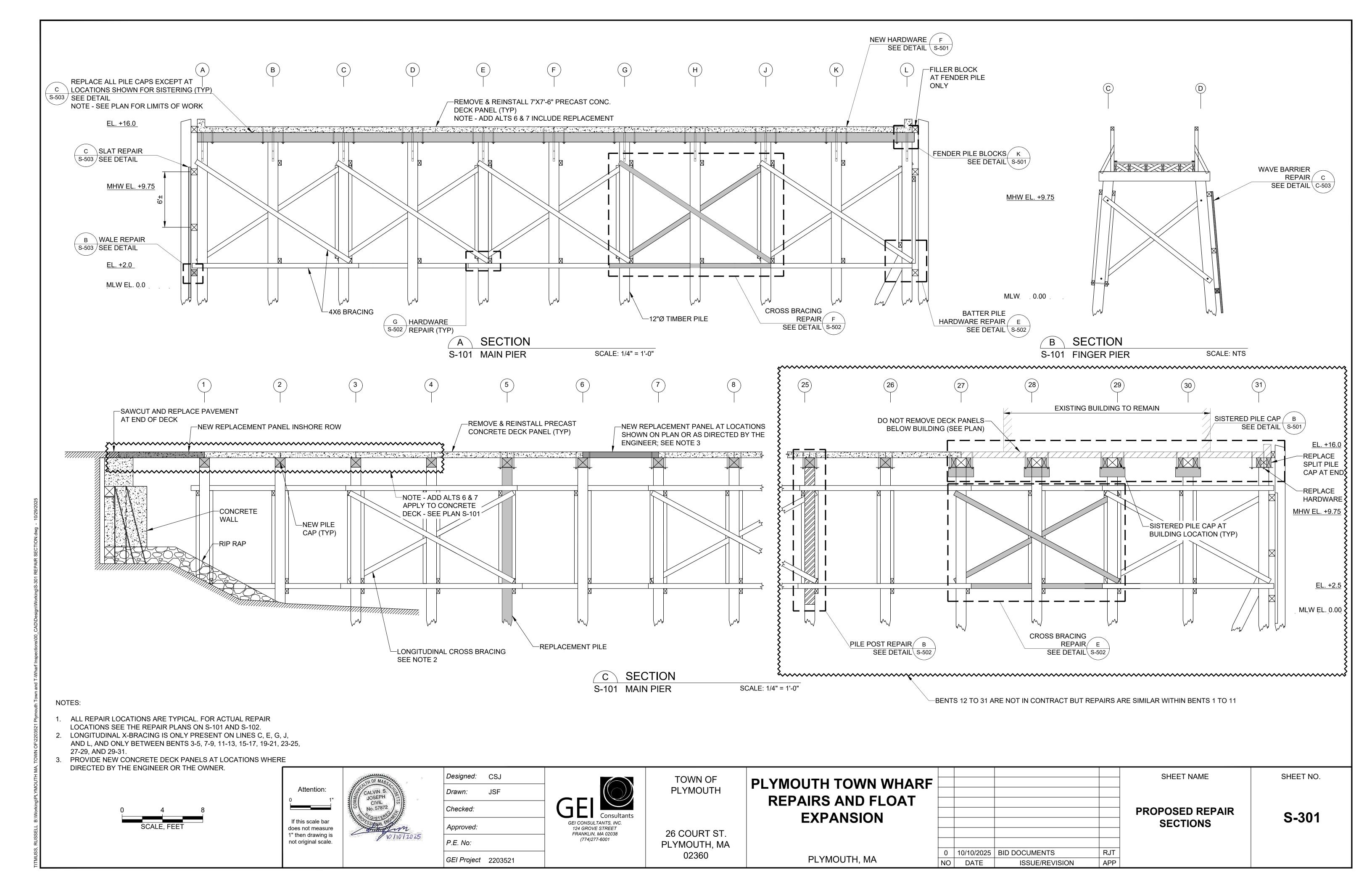
26 COURT ST.
PLYMOUTH, MA
02360
PLYMOUTH, MA
PLYMOUTH, MA

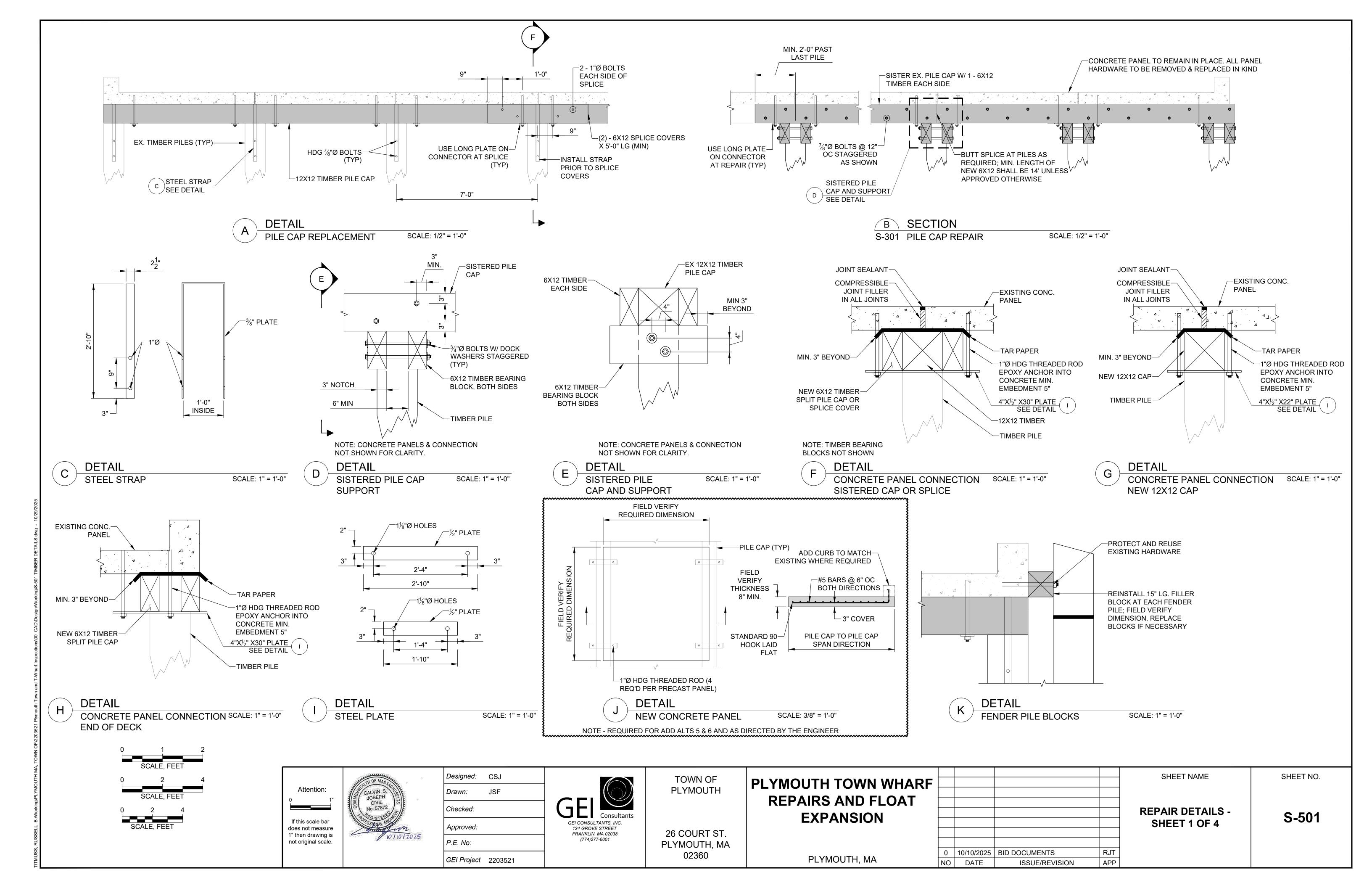
				SHEET NAME	SHEET NO.
				<b>EXISTING SECTIONS</b>	V-301
	40/40/0005				
0	10/10/2025	BID DOCUMENTS	RJT		
NO	DATE	ISSUE/REVISION	APP		

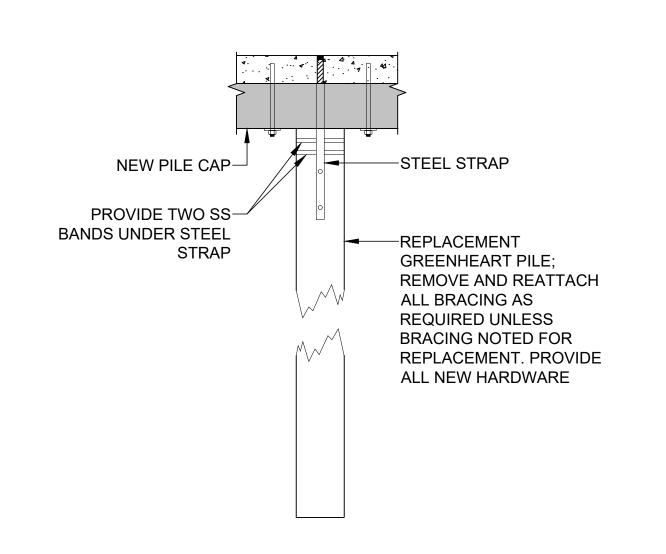












A DETAIL
S-102 REPLACEMENT PILE SCALE: 1/2" = 1'-0"

2 - 1"Ø BOLTS, NUTS-

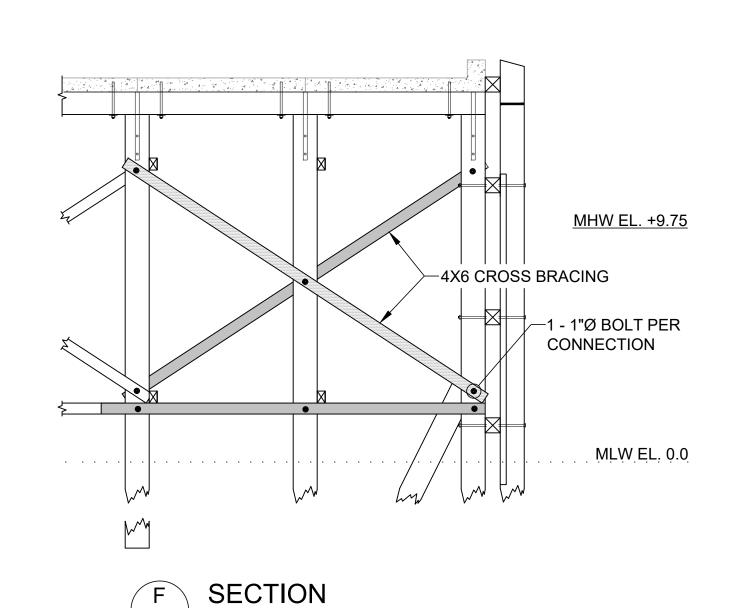
EXISTING BATTER PILE—

E DETAIL

S-301 BATTER PILE

HARDWARE REPAIR

& WASHERS



1"Ø BOLT W/ DOCK WASHER— @ CENTER OF PILE CAP

1"Ø BOLT W/ DOCK-

WASHER (TYP)

12"Ø CIRCULAR TIMBER-

CUT EXISTING PILE @ SOUND-

MATERIAL & CLEAN AS REQ'D

MLW EL. 0.0

EXISTING PILE.

1. TAR PAPER SHALL BE PLACED

ON BOTTOM OF POST & ON

2. SPACE BOLTS @ 1'-0" O.C. 8"
MINIMUM DISTANCE FROM
ENDS SHALL BE MAINTAINED.

DETAIL

S-301 TIMBER PILE POST

PILE OR 12X12

FOR POSTING

EXISTING PILE CAP-

LENGTH AS REQ'D -3"X10" BOTH

SIDES (TYP)

SCALE: 3/8" = 1'-0"

NOTE: REPLACE UP TO FOUR LEVELS OF BRACING WITHIN BOX - TWO HORIZONTAL AND TWO X BRACING.

S-301 BRACING - MAIN PIER

TAR PAPER

BLOCKING
AS REQ'D

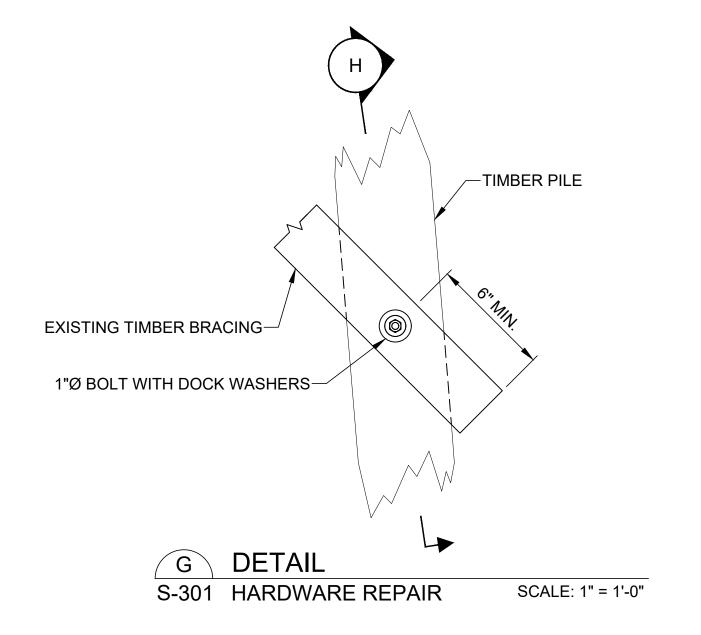
D

2-3/4" Ø BOLT W/
DOCKWASHERS PER ANGLE

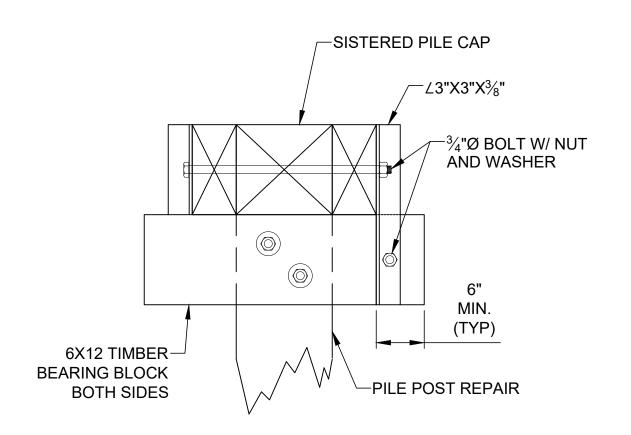
3/4"Ø BOLTS W/ DOCK
WASHERS (TYP)
STAGGERED

6X12 TIMBER BEARING
BLOCK, BOTH SIDES

C DETAIL
PILE POST CONNECTION SCALE: 1" = 1'-0"

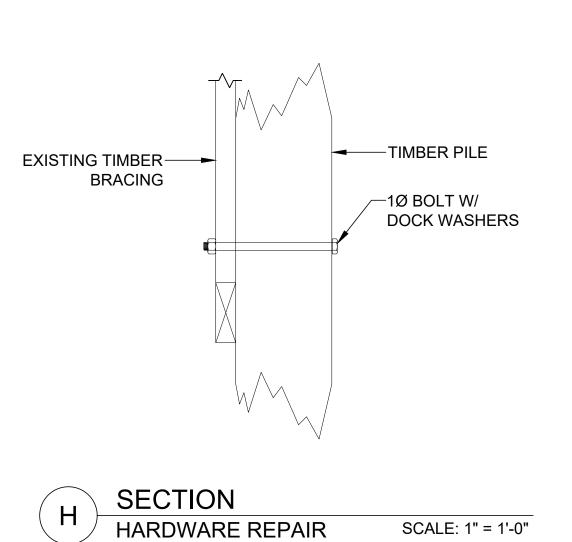


NOTE: REPLACE ALL CORRODED HARDWARE BELOW U/S OF PILE CAP EXCEPT BATTER PILE HARDWARE - ASSUME FOUR LOCATIONS PER PILE



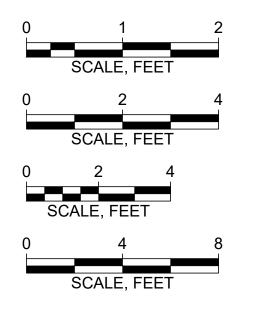
D DETAIL

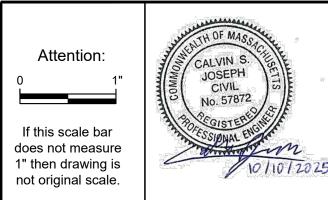
PILE POST CONNECTION SCALE: 1" = 1'-0"



NOTE:

1. ALL REPAIR DETAILS SHOWN ON THIS SHEET ARE AT LOCATIONS MARKED ON PLANS ONLY OR AS DIRECTED BY THE ENGINEER.





-EXISTING PILE

SCALE: 1/2" = 1'-0"

	Designed:	CSJ	
	Drawn:	JSF	
15	Checked:		GE
in.	Approved:		GEI COI 124 G FRAN
110/2025	P.E. No:		(7

GEI Project 2203521



TOWN OF PLYMOUTH

26 COURT ST.

PLYMOUTH, MA

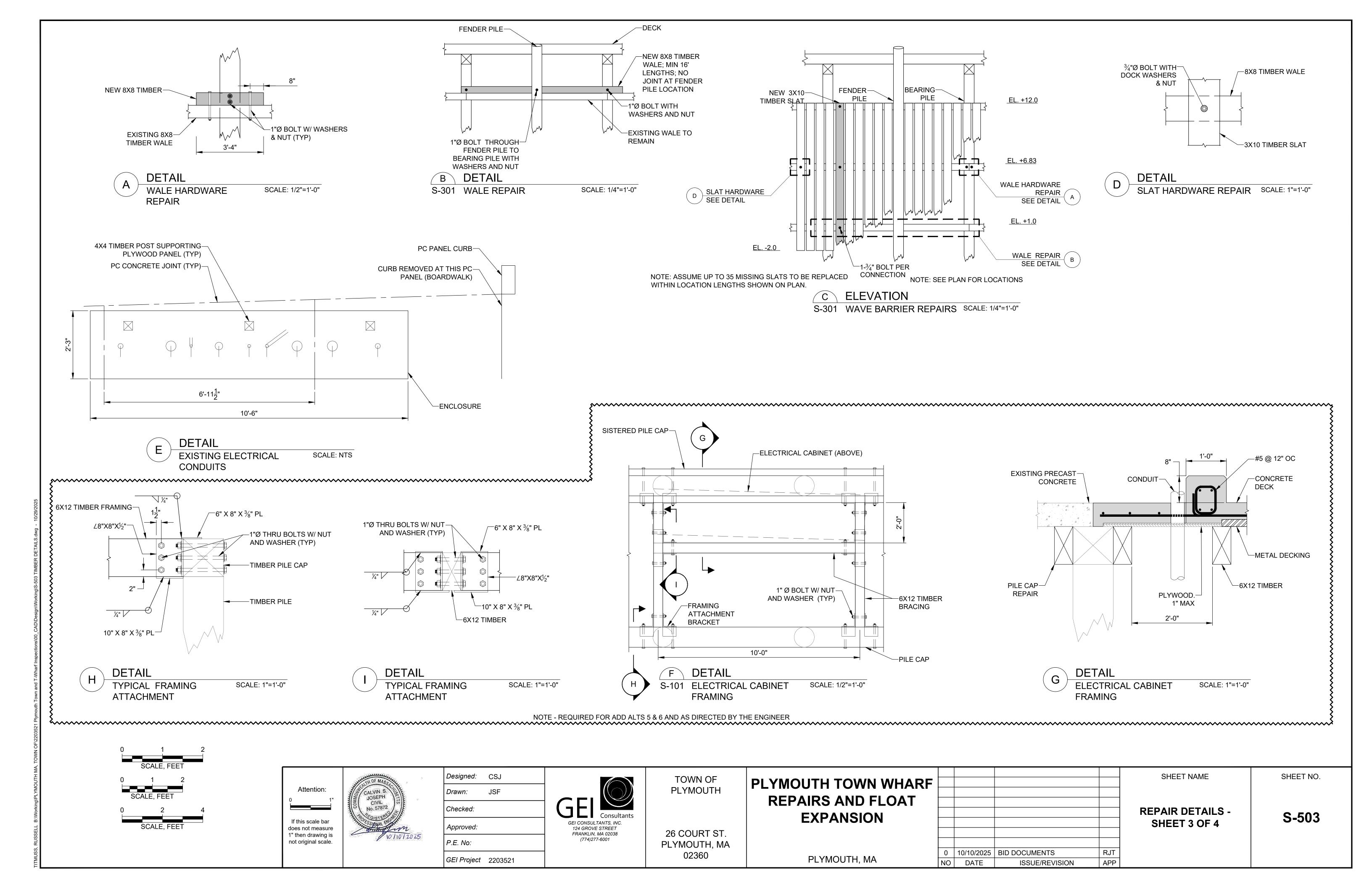
02360

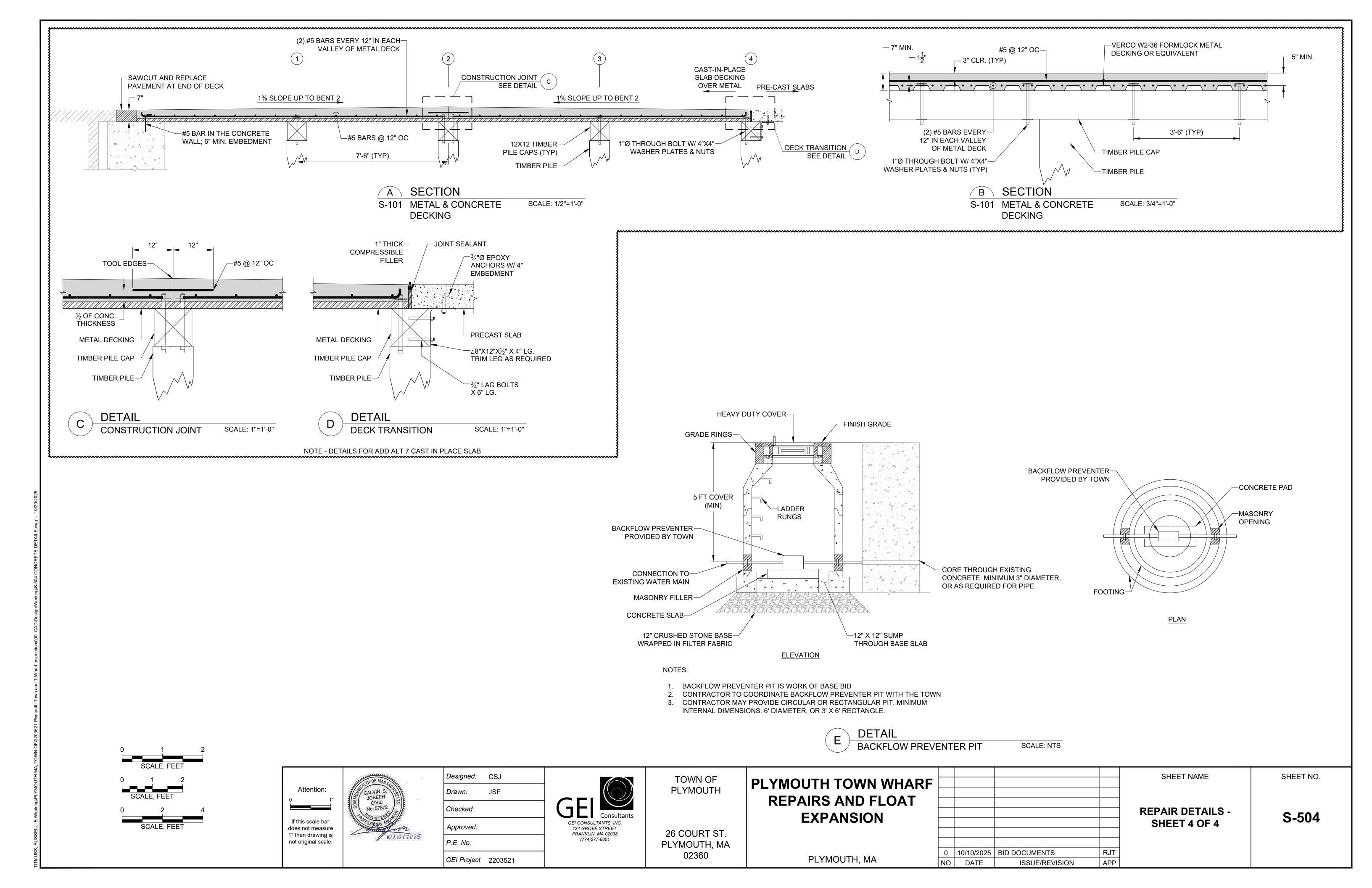
SCALE: 1/4"=1'-0"

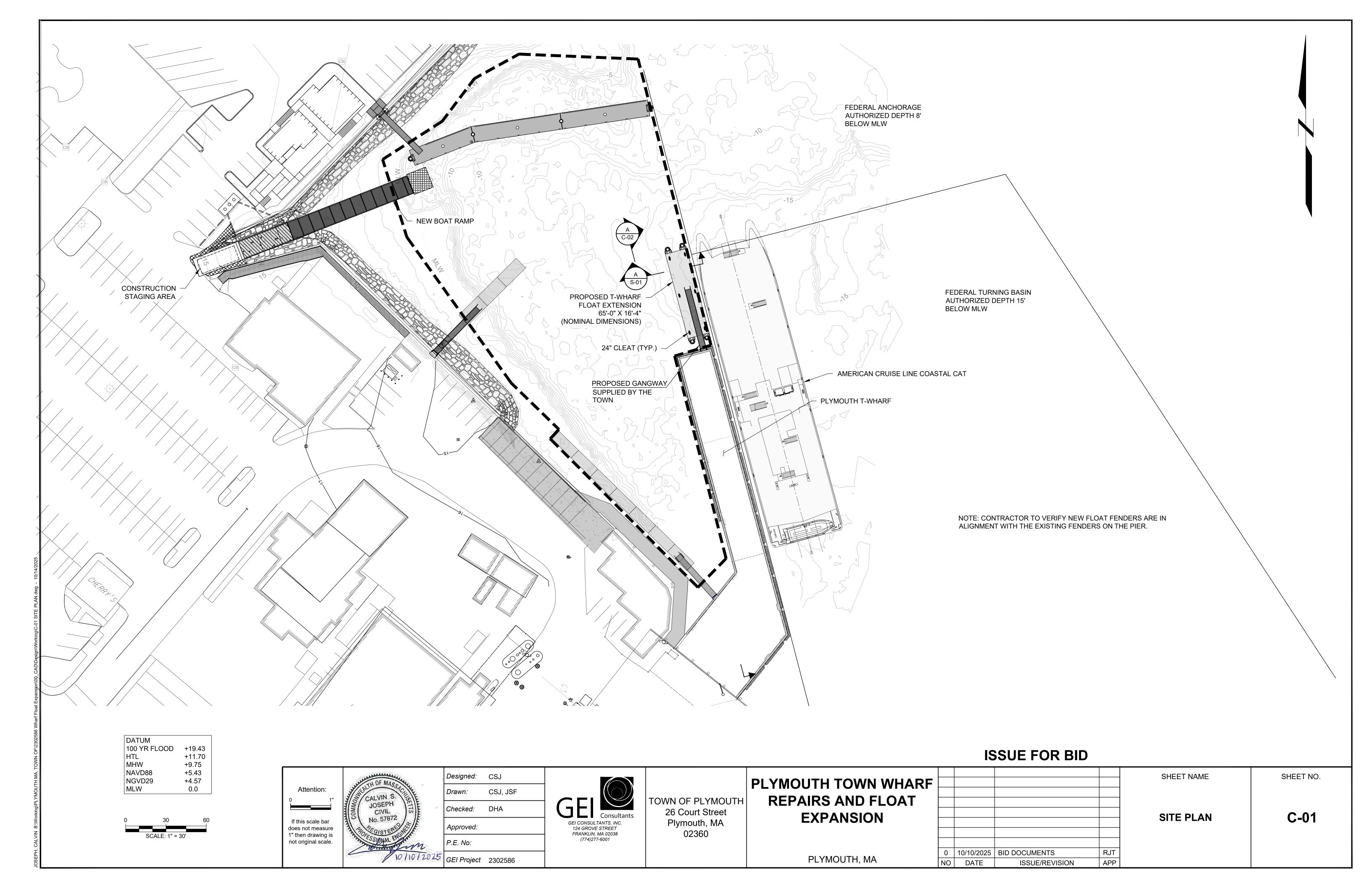
PLYMOUTH TOWN WHAR
<b>REPAIRS AND FLOAT</b>
<b>EXPANSION</b>

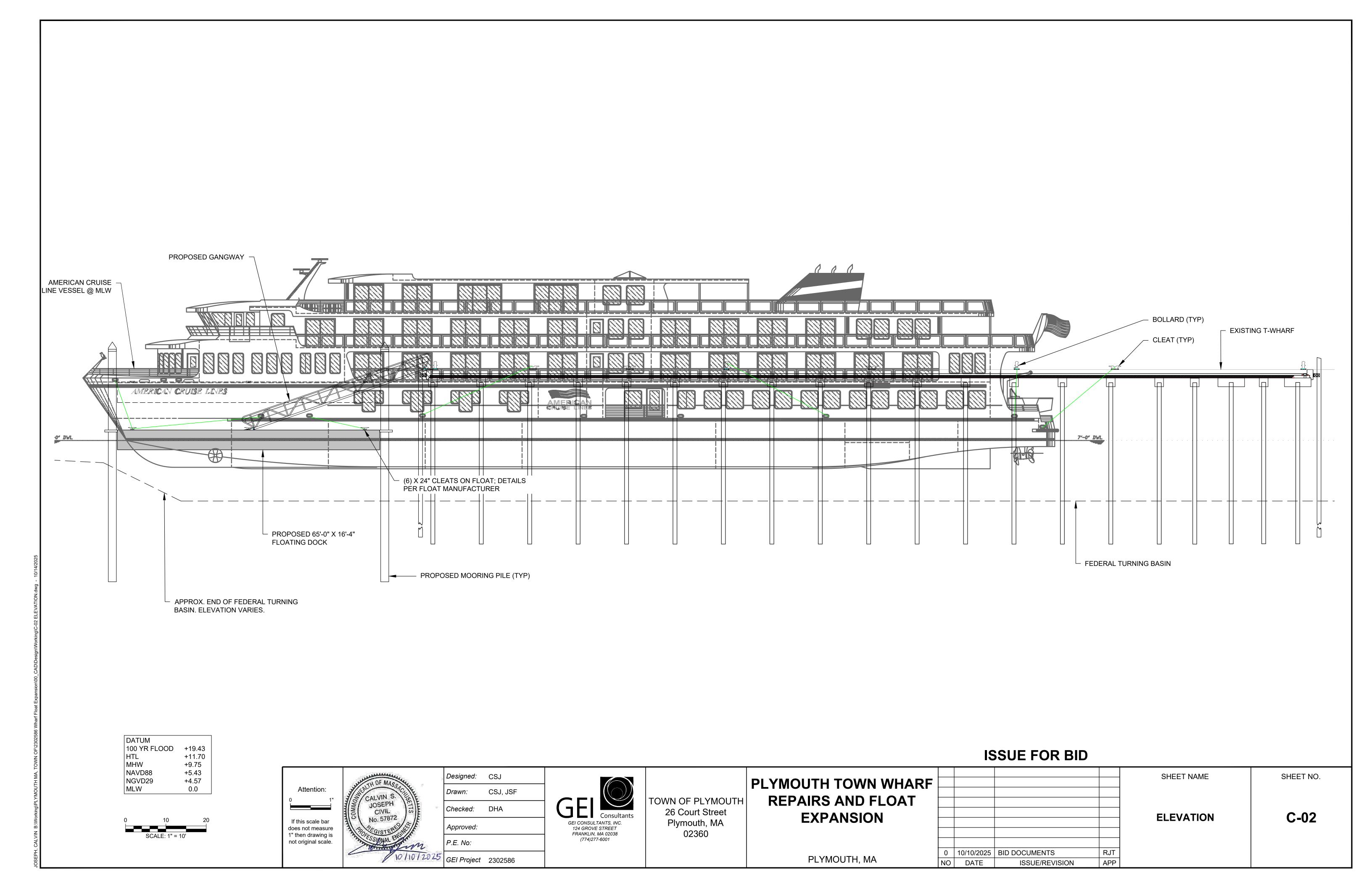
PLYMOUTH, MA

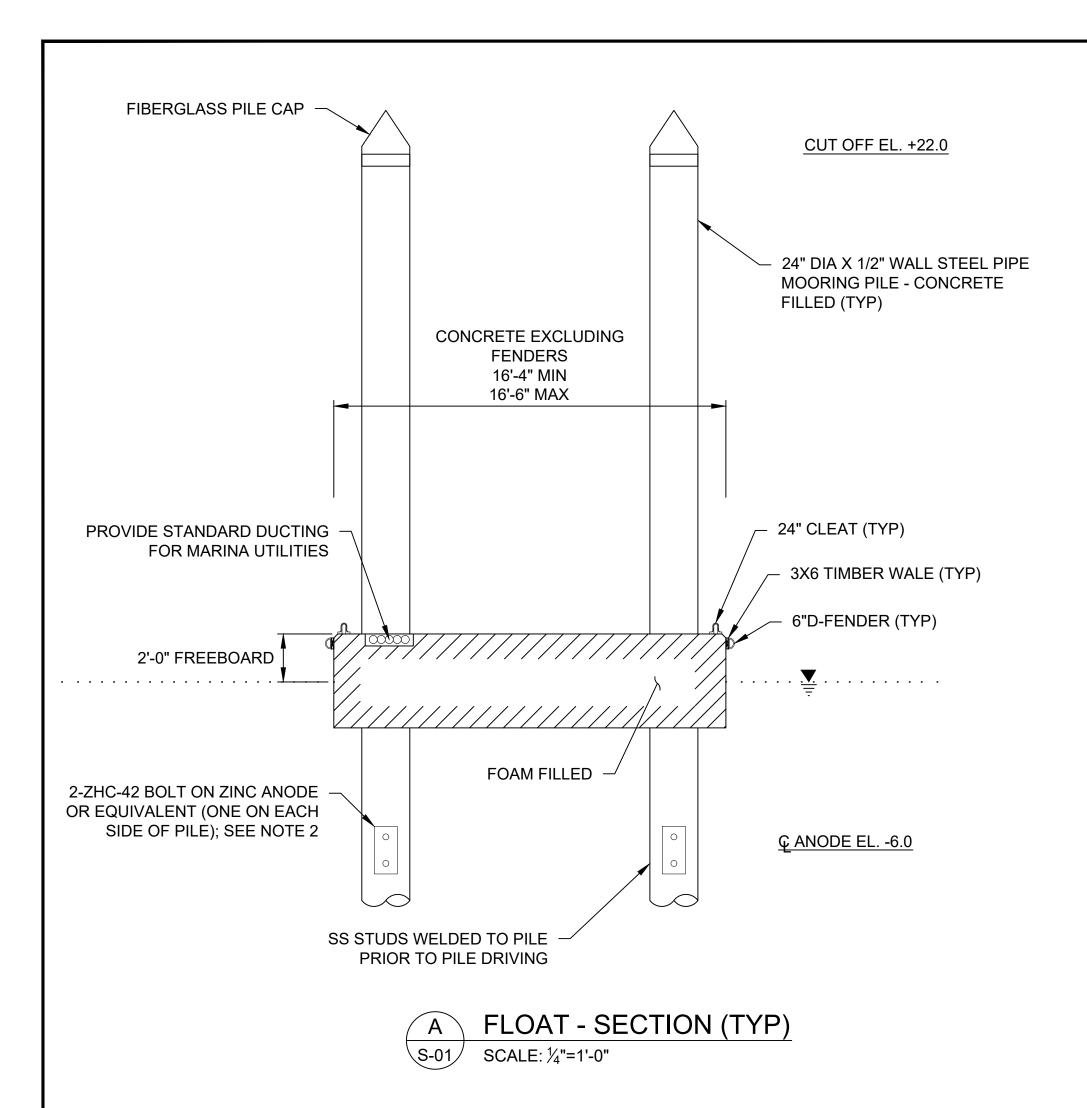
				SHEET NAME	SHEET NO.
				REPAIR DETAILS - SHEET 2 OF 4	S-502
0 NO	10/10/2025 DATE	BID DOCUMENTS ISSUE/REVISION	RJT APP		

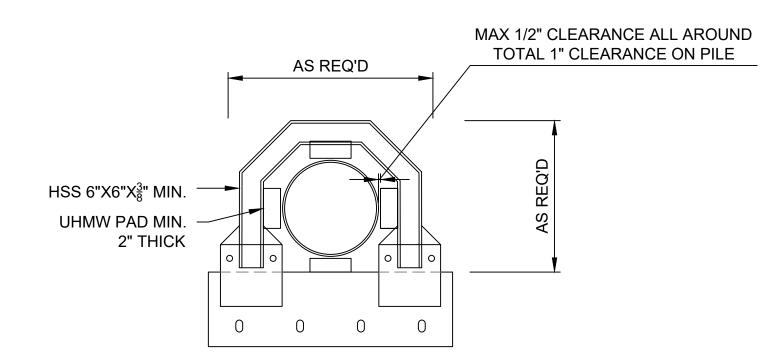








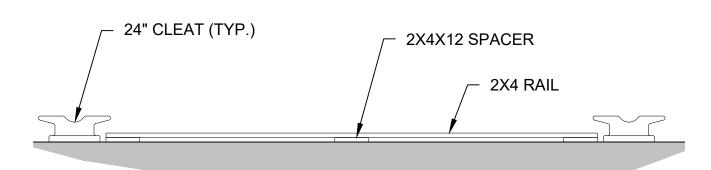




FLOAT - EXTERNAL MOORING GUIDE S-01 SCALE: ½"=1'-0"

#### NOTE:

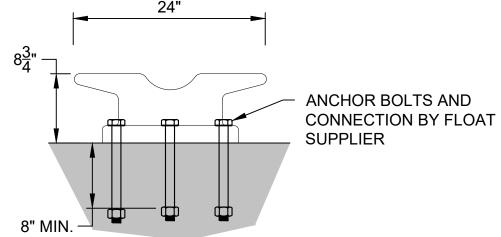
- 1. DIMENSIONS SHOWN SHALL BE MINIMUM. FLOAT MANUFACTURER SHALL PROVIDE FINAL DESIGN WITH CALCULATIONS.
- 2. UMHW PADS SHALL HAVE BEVELED EDGES.
- 3. PILE GUIDE SHALL ATTACH DIRECTLY TO THE
- CONCRETE FLOAT. 4. UHMW SHALL BE INSTALLED TO BE REPLACEABLE WITHOUT REQUIRING THE REMOVAL OF THE PILES.



1. 3 CLEATS PER SIDE EQUALLY SPACED - TOTAL OF 6 CLEATS REQUIRED

TIMBER CLEATING DETAIL

S-01/ SCALE: 3/8"=1'-0"



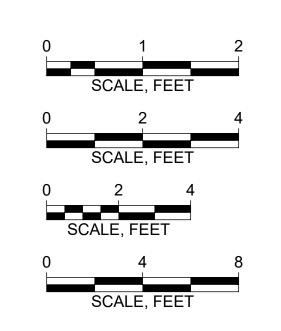
1. 24" CLEAT SHALL HAVE A MINIMUM WORKING LOAD OF 15 TONS

24" CLEAT DETAIL SCALE: 1"=1'-0"

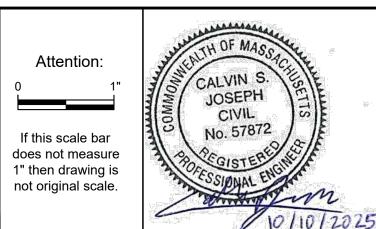




- 1. ONE ANODE SHALL BE PLACED ON THE SIDES OF EACH PILE.
- UHMW SHALL BE INSTALLED TO BE REPLACEABLE WITHOUT REQUIRING THE REMOVAL OF THE PILES.
- 3. ALL MOORING PILES SHALL BE DRIVEN TO A TIP ELEVATION OF -35'.



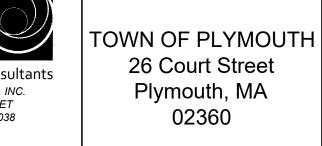
# **ISSUE FOR BID**



Designed: CSJ Drawn: Checked: DHA Approved: P.E. No: 10 / 10 / 20 25 GEI Project 2302586



CSJ, JSF



PLYMOUTH TOWN WHARF
<b>REPAIRS AND FLOAT</b>
<b>EXPANSION</b>

PLYMOUTH, MA

				SHEET NAME	SHEET NO.
				FLOAT DETAILS	S-01
				I LOAT BLIAILS	3-01
0	10/10/2025	BID DOCUMENTS	RJT		
NO	DATE	ISSUE/REVISION	APP		

#### **ATTACHMENT 3**

#### **US ARMY CORPS OF ENGINEERS PERMIT LETTER**



#### **DEPARTMENT OF THE ARMY**

US ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT 696 VIRGINIA ROAD CONCORD MA 01742-2751

August 7, 2025

Regulatory Division

File Number: NAE-2025-00838

Chad Hunter
Town of Plymouth
185 Water Street
Plymouth, Massachusetts 02360

Sent by email: <a href="mailto:chunter@plymouth-ma.gov">chunter@plymouth-ma.gov</a>

Dear Mr. Hunter:

The U.S. Army Corps of Engineers (USACE) has reviewed your application to enhance the structural integrity of the existing wharf structure by replacing existing piles. The existing (21) 12-inch diameter timber piles will be removed using vibratory methods and replaced with (21) 12-inch diameter timber mooring piles will be installed through vibratory hammering. A 17,200 square foot area including the wharf structure will be surrounded by a turbidity boom. All new impacts will be within the footprint of the existing structure. Work will be conducted from the shore and wharf deck, and from a 60-foot by 150-foot temporary construction barge. Work will take about six months and start in the fall or winter of 2025. This project is located in the Plymouth Harbor along Water Street in Plymouth, Massachusetts. The work is shown on the enclosed plans titled "PLYMOUTH TOWN WHARF REPAIRS," on ten sheets, and dated "7/9/2025."

Based on the information that you have provided, we verify that the activity is authorized under General Permit # 2 of the June 2, 2023, federal permit known as the Massachusetts General Permits (GPs). The GPs are available at <a href="https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit">https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Massachusetts-General-Permit</a>.

Please review the enclosed GPs carefully, in particular the general conditions beginning on page 35, and ensure that you and all personnel performing work authorized by the GPs are fully aware of and comply with its terms and conditions. A copy of the GPs and this verification letter shall be available at the work site as required by General Condition 17. You must perform this work in compliance with the following special conditions:

 You shall initiate pile driving for 15 seconds at reduced energy followed by a oneminute waiting period. This sequence of 15 seconds of reduced energy driving, one-minute waiting period will be repeated two additional times, followed immediately by pile-driving at full rate and energy.

- 2. You shall conduct your work in accordance with the Special Conditions of the Section 408 permission below:
  - a. The location of all installed structures within the federal feature or within the designated offset, which is 3x project depth of the FNP, shall be verified by a Professional Land Surveyor, and presented on a plan showing those locations (with coordinates) relative to the edge of the Plymouth Harbor FNP anchorage. That plan shall be submitted to the Corps (see general condition 22) for review and acceptance no later than 30 days after completion of the installed or reconfigured floats and/or mooring piles. The submittal shall be sent to: (a) christina.m.comeau@usace.army.mil and (b) cenae-r@usace.army.mil. The as-built drawing(s) shall also include:
    - i. The structure's horizontal location relative to the closest FNP and the waterway, horizontal coordinates, the FNP limits, bar (graphic) scale, north arrow, and the dates of the survey and drawings.
    - ii. The structure's horizontal state plane coordinates in U.S. survey feet based on the Massachusetts, MA-2001 NAD 1983.
  - b. The permittee shall not interfere with Corps of Engineers personnel or its contractors engaged in hydrographic surveys, maintenance or improvement of the existing FNP. If, in the opinion of the Corps, the permittee's structures or vessels must be moved to allow for the maintenance or improvement of the existing FNP, the permittee shall move the structures or vessels as directed by the Corps.
  - c. Any equipment being used for constructing the proposed work is required to shift or move to accommodate the movement or passage of vessels and floating equipment utilizing the federal navigation project features. The water-based equipment shall comply with all requests for passage or to move or interrupt work for a reasonable time period from a vessel utilizing the anchorage.
- 3. You must complete and return the enclosed Certificate of Compliance within one month following the completion of the authorized work.

This authorization expires on June 1, 2028. You must commence or have under contract to commence the work authorized herein by June 1, 2028, and complete the work by June 1, 2029. If not, you must contact this office to determine the need for further authorization and we recommend you contact us *before* the work authorized herein expires. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction as we must approve any changes before you undertake them. Performing work within our jurisdiction that is not specifically authorized by this determination or failing to comply with the special condition(s) provided above or all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization does not obviate the need to obtain other federal, state, or local authorizations required by law. Applicants are responsible for applying for and obtaining any other approvals.

Your project is located within, or may affect resources within, the coastal zone. The Massachusetts Office of Coastal Zone Management (CZM) has already determined that no further Federal Consistency Review is required.

We continually strive to improve our customer service. To better serve you, we would appreciate your completing our Customer Service Survey located at <a href="https://regulatory.ops.usace.army.mil/customer-service-survey">https://regulatory.ops.usace.army.mil/customer-service-survey</a>.

Please contact Abigail Thrall of my staff at <u>abigail.e.thrall@usace.army.mil</u> or (978) 318-8029 if you have any questions.

Sincerely,

Kara Hellige

Kara Hellige

Chief, Massachusetts Branch

**Regulatory Division** 

CC:

Russell Titmuss, GEI Consultants, <a href="mailto:rtitmuss@geiconsultants.com">rtitmuss@geiconsultants.com</a>

Environmental Protection Agency, R1 CWA404 REG@epa.gov

Alexa Cacacie, NMFS, Gloucester, MA; alexa.cacacie@noaa.gov

Sean Duffey, Coastal Zone Management, Boston, MA, <a href="mailto:sean.duffey@mass.gov">sean.duffey@mass.gov</a>

Patrice Bordonaro, Coastal Zone Management, Boston, MA,

patrice.bordonaro@mass.gov

Maissoun Reda, Chief, DEP SERO, Wetlands and Waterways, Lakeville, MA; maissoun.reda@mass.gov

MassDEP-WRP, Boston, MA; <a href="mailto:dep.waterways@mass.gov">dep.waterways@mass.gov</a>

David Robinson, MA Board of Underwater Archaeological Resources (BUAR); david.s.robinson@mass.gov

Plymouth Conservation Commission, rvacca@townhall.plymouth.ma.us



#### **COMPLIANCE CERTIFICATION FORM**

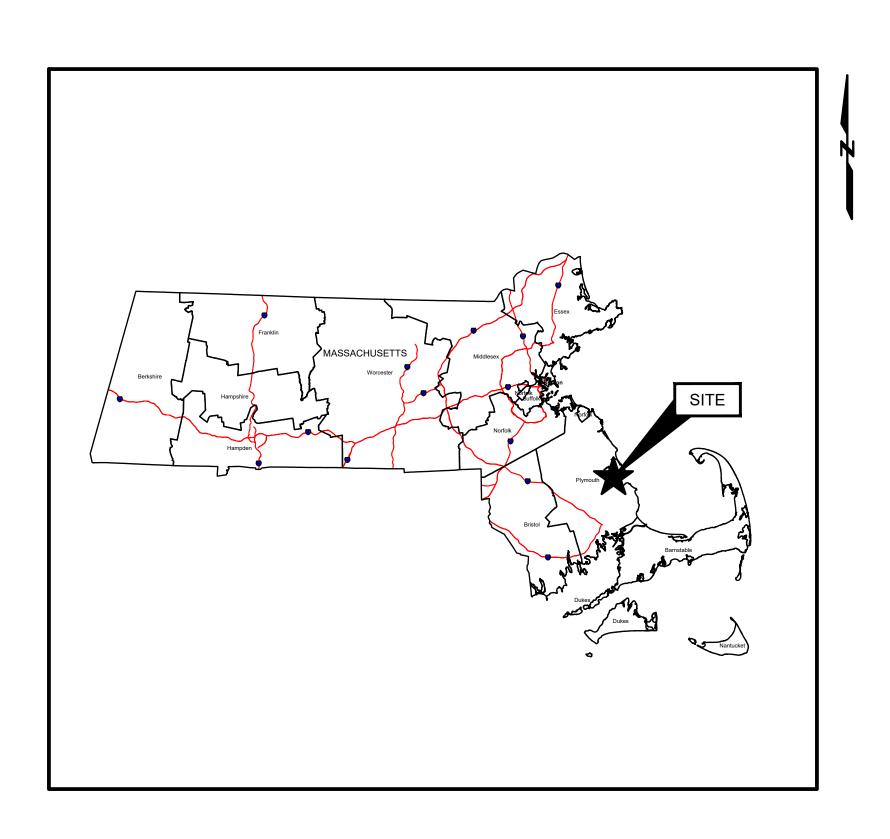
(Minimum Notice: Permittee must sign and return notification within one month of the completion of work.)

<b>Project Manager:</b>			
Name of Permitte	e:		
Permit Issuance [	Date:		_
		se the 2 <sup>nd</sup> when mitigation require our office upon completion of the ac	
any mitigation requ	ired by the permit. You m	our office upon completion of the actust submit this after the mitigation is ring, which requires separate submi	3
********	********	**********	*****
* E-MAIL TO:	cenae-r-ma@usace.arm	<u>ıy.mil</u> ; or	*
* * MAIL TO:	Massachusetts Section		*
*	Regulatory Division		*
*	•	ineers, New England District	*
*	696 Virginia Road	,	*
*	Concord, MA 01742-27	51 ************	*
Army Corps of Eng subject to permit su I hereby certify th completed in acco	ineers representative. If y uspension, modification, o at the work authorized b ordance with the terms a	bject to a compliance inspection by ou fail to comply with this permit your revocation.  By the above referenced permit wand conditions of the above referenced permit was and conditions of the above referenced permit was and conditions of the above referenced permit was an accordance with the	u are as enced
Signature of Permi	ttee	Date	
Printed Name		Date of Work Completion	
( )		( )	
Telephone Numbe	r	Telephone Number	

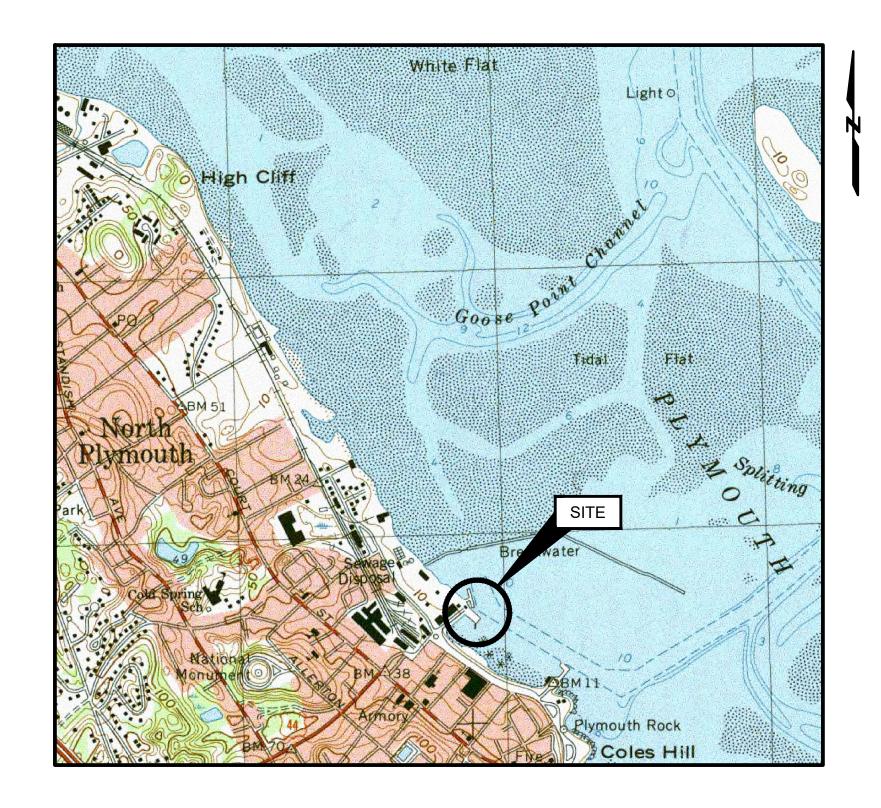
Permit Number:

# PLYMOUTH TOWN WHARF REPAIRS

PLYMOUTH TOWN WHARF
PLYMOUTH, MA
SEPTEMBER 2024



STATE or COUNTY MAP
(NOT TO SCALE)



SITE LOCATION MAP
(NOT TO SCALE)

PREPARED FOR:

TOWN OF PLYMOUTH 26 COURT STREET PLYMOUTH, MA PREPARED BY:

GEI CONSULTANTS, INC. 124 GROVE STREET FRANKLIN, MA 02038 (774)277-6001





DWG. NO.

G-001

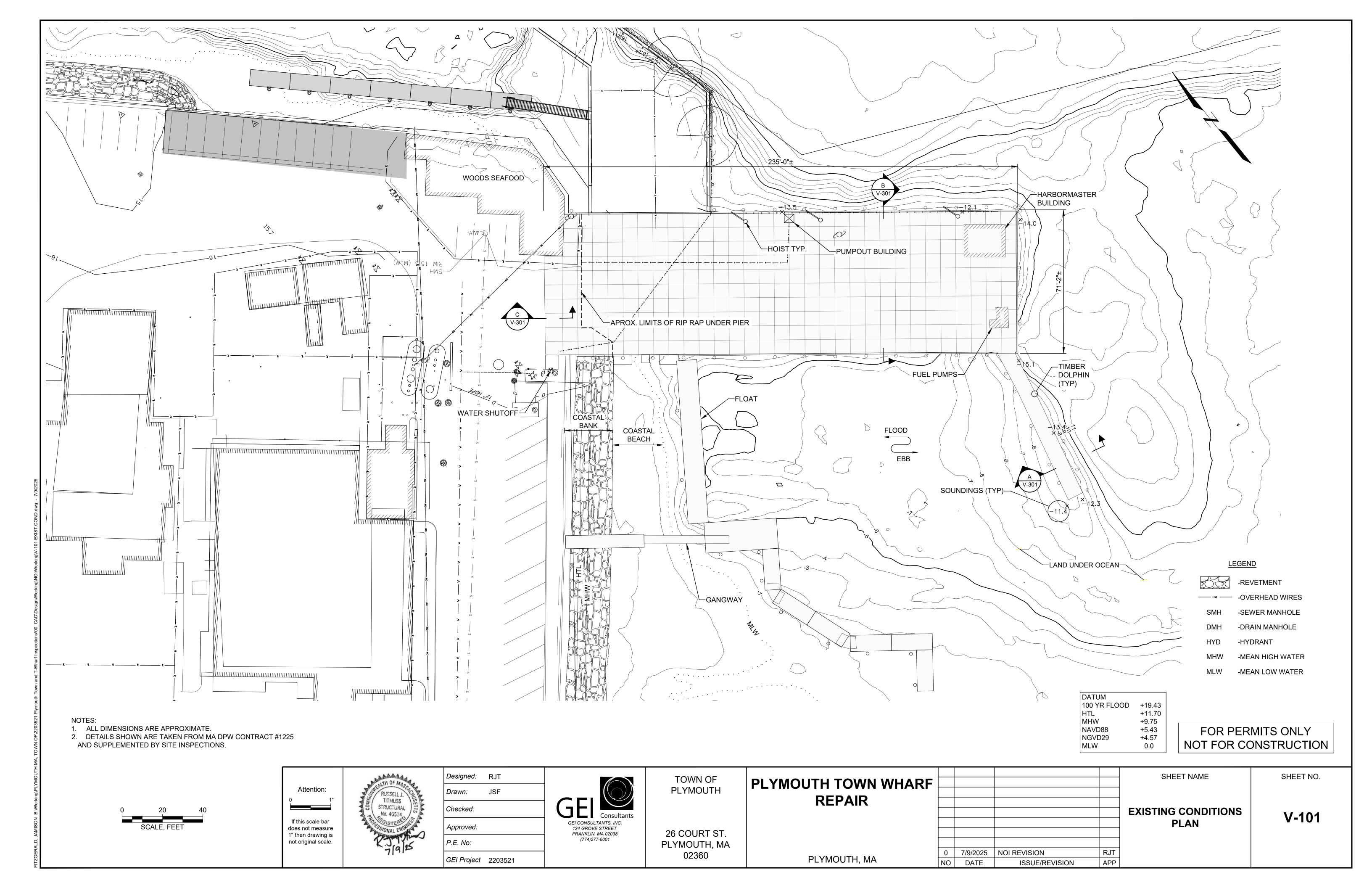
SHEET NO.

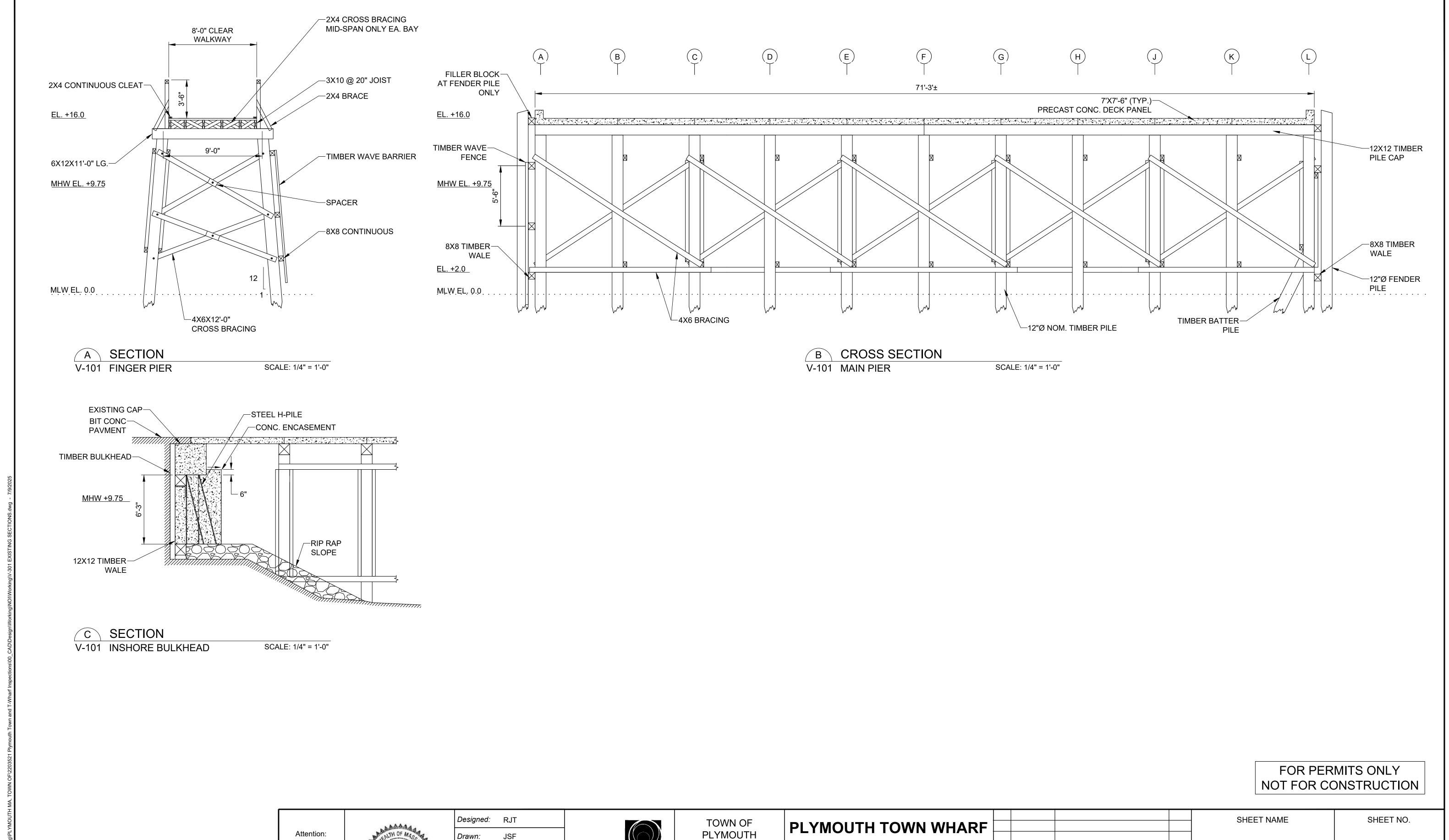
7/9/2025 NOI REVISION RJT

DATE ISSUE/REVISION APP

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF GEI CONSULTANTS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF GEI CONSULTANTS.

GEI PROJECT NO. 2203521





26 COURT ST.

PLYMOUTH, MA

02360

**REPAIR** 

PLYMOUTH, MA

7/9/2025 NOI REVISION

DATE

ISSUE/REVISION

V-301

**EXISTING SECTIONS** 

RJT

APP

Drawn:

Checked:

Approved:

P.E. No:

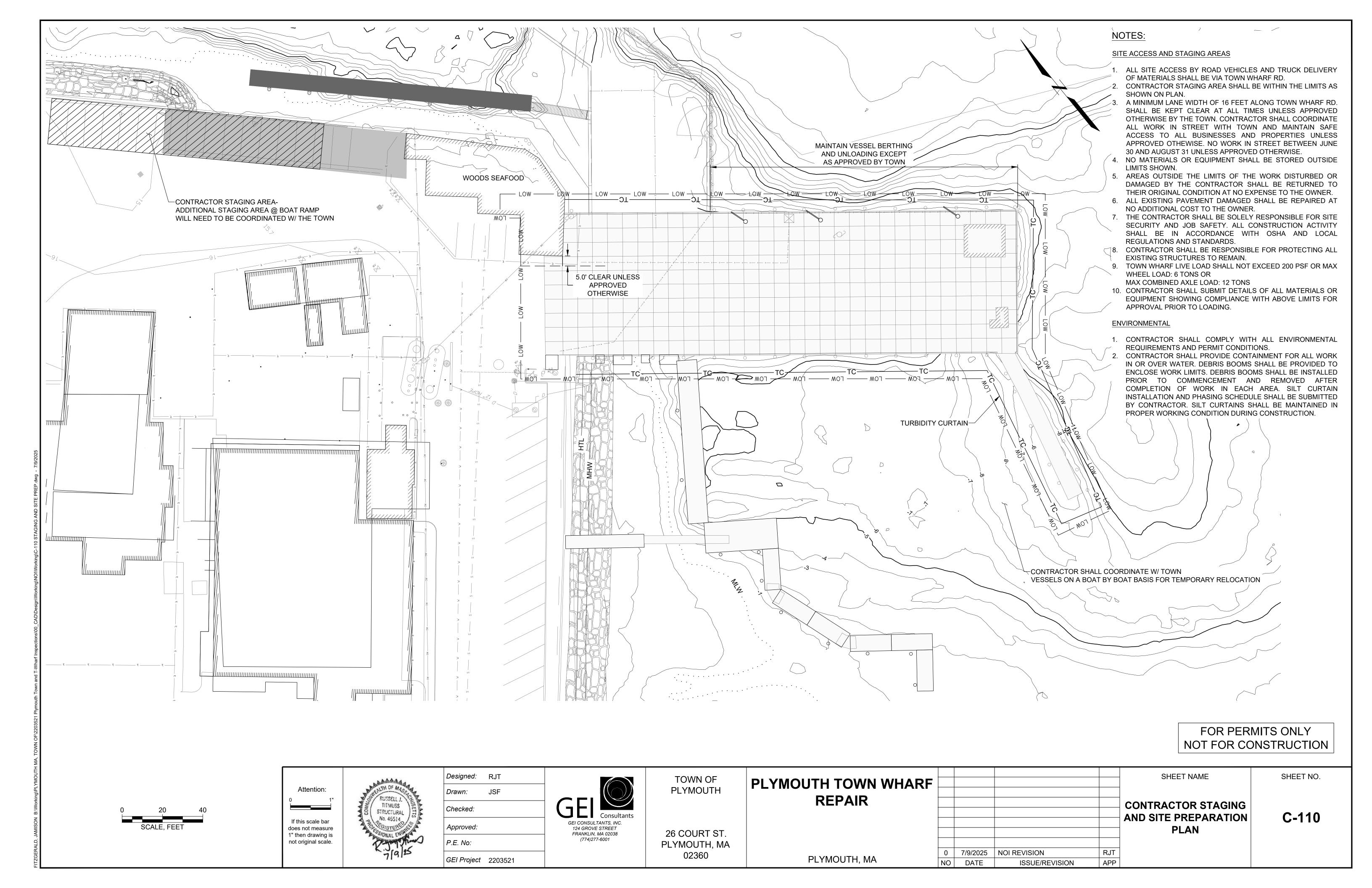
GEI Project 2203521

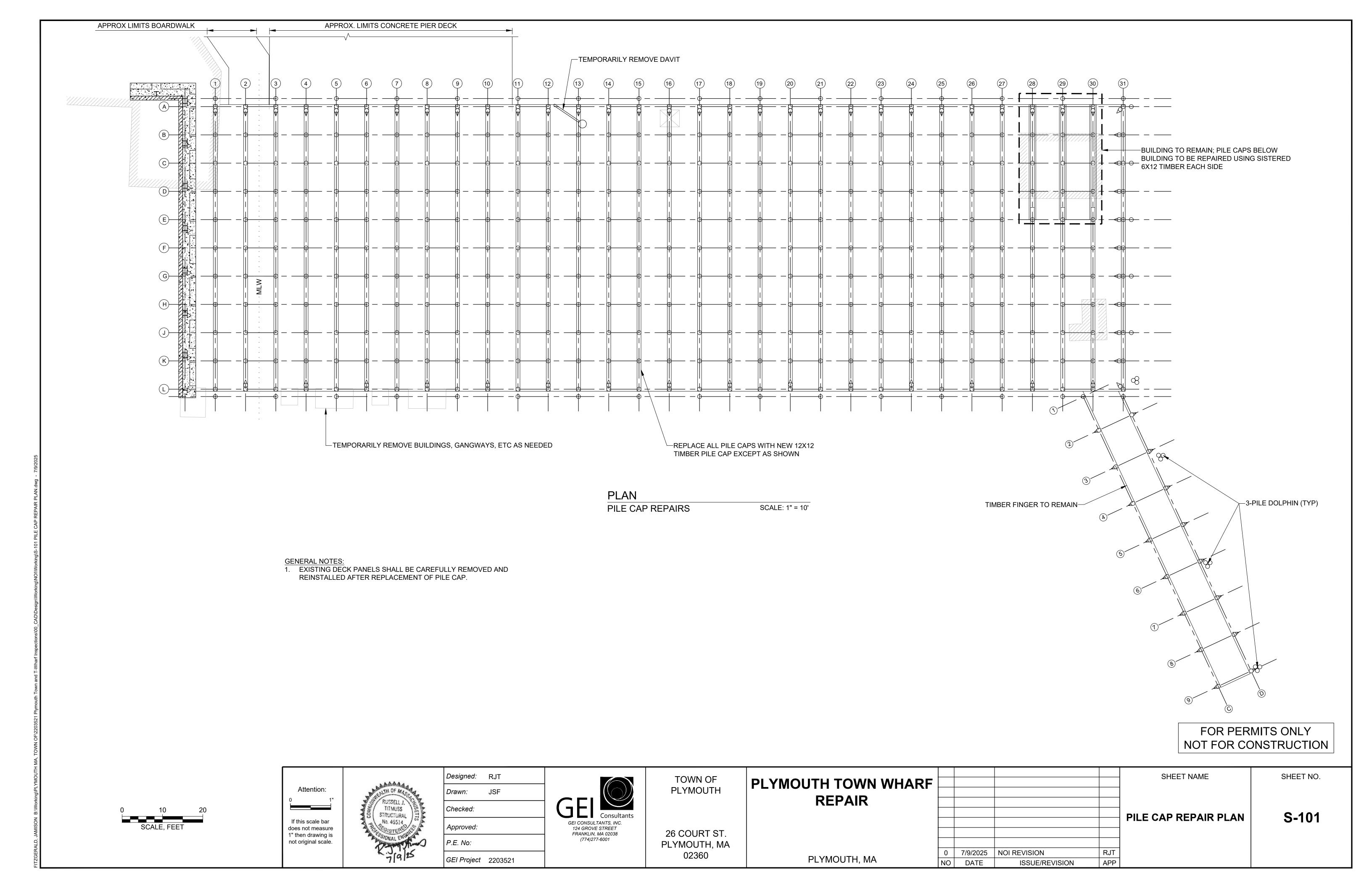
124 GROVE STREET FRANKLIN, MA 02038 (774)277-6001

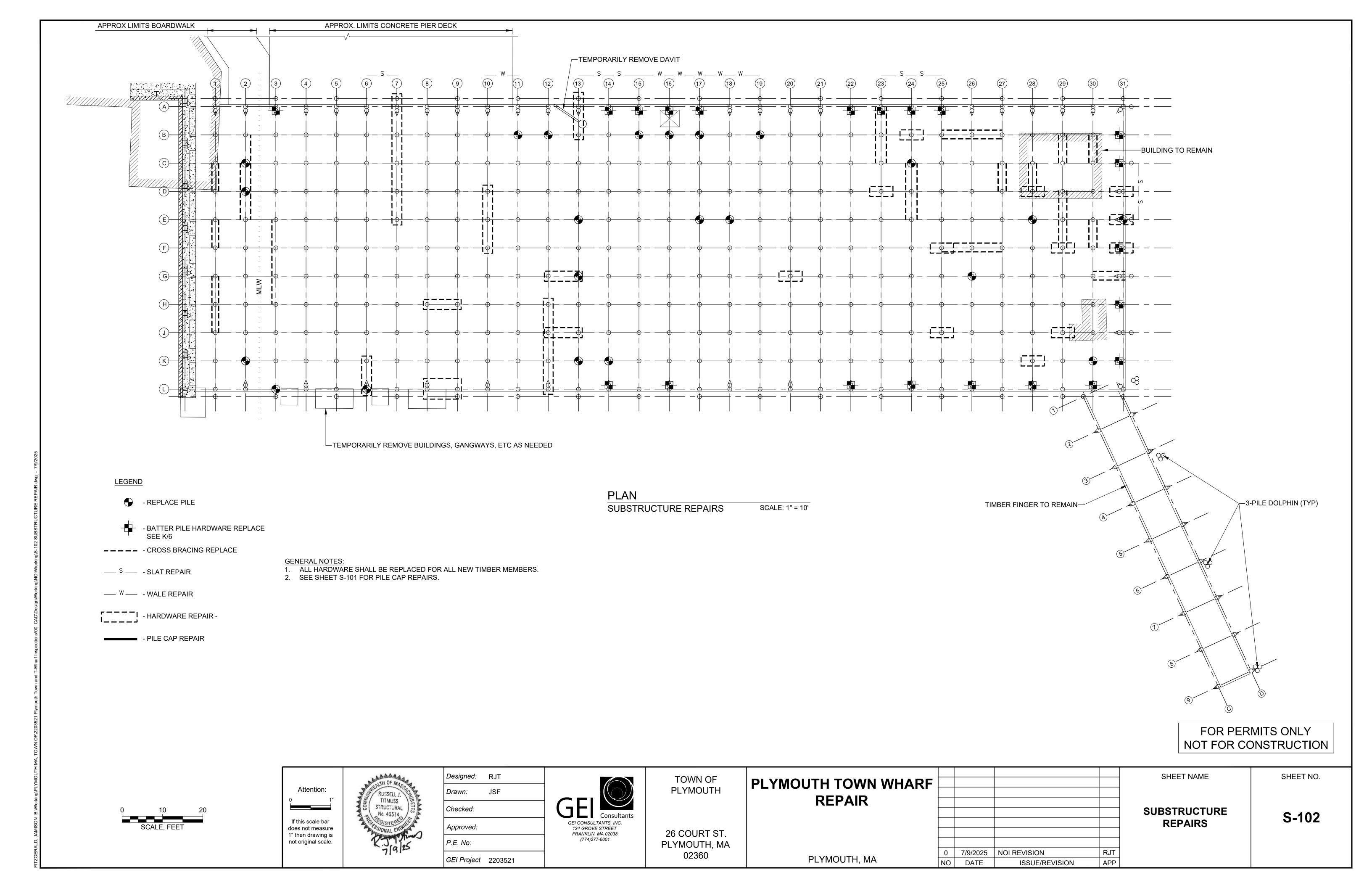
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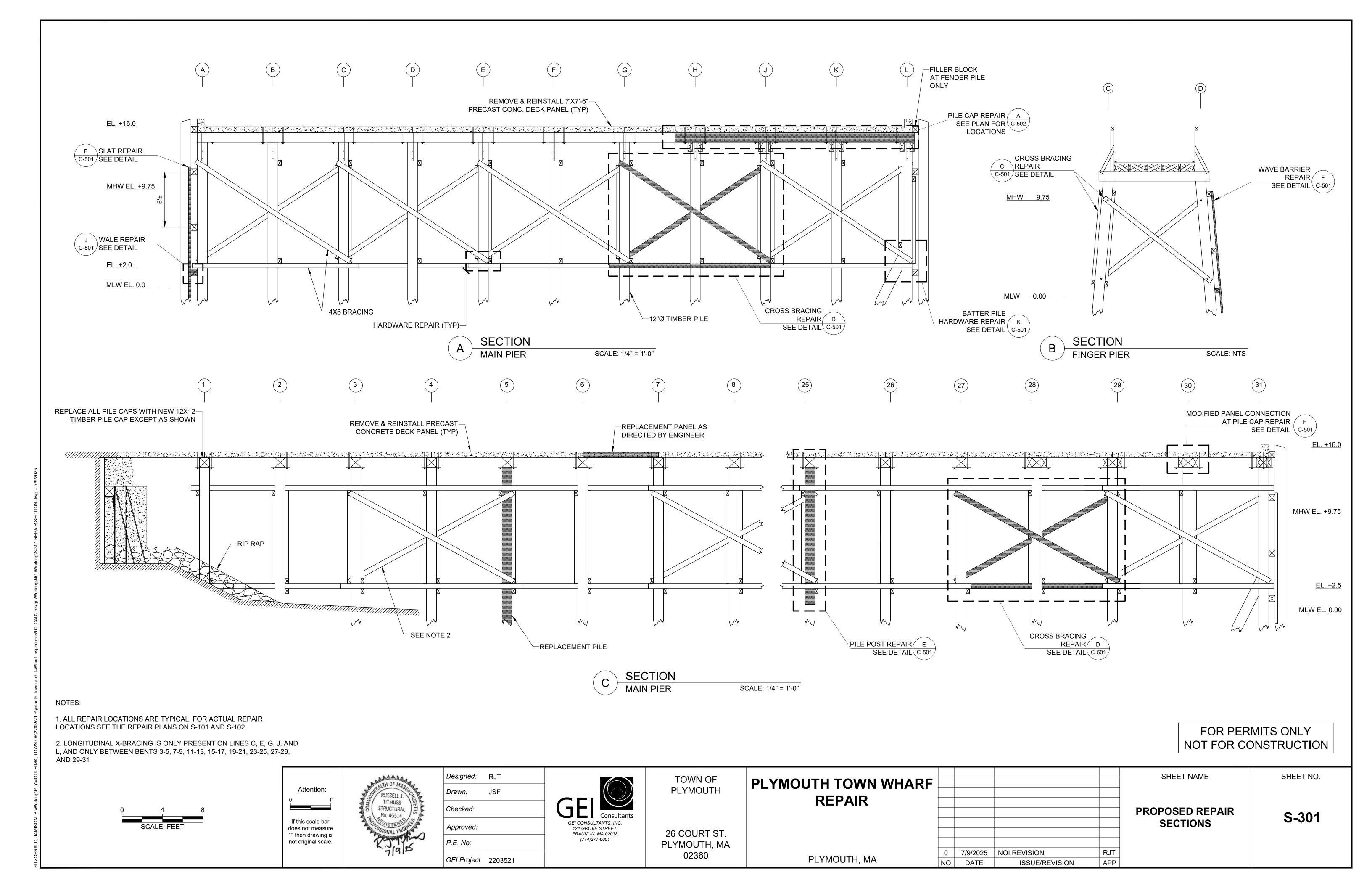
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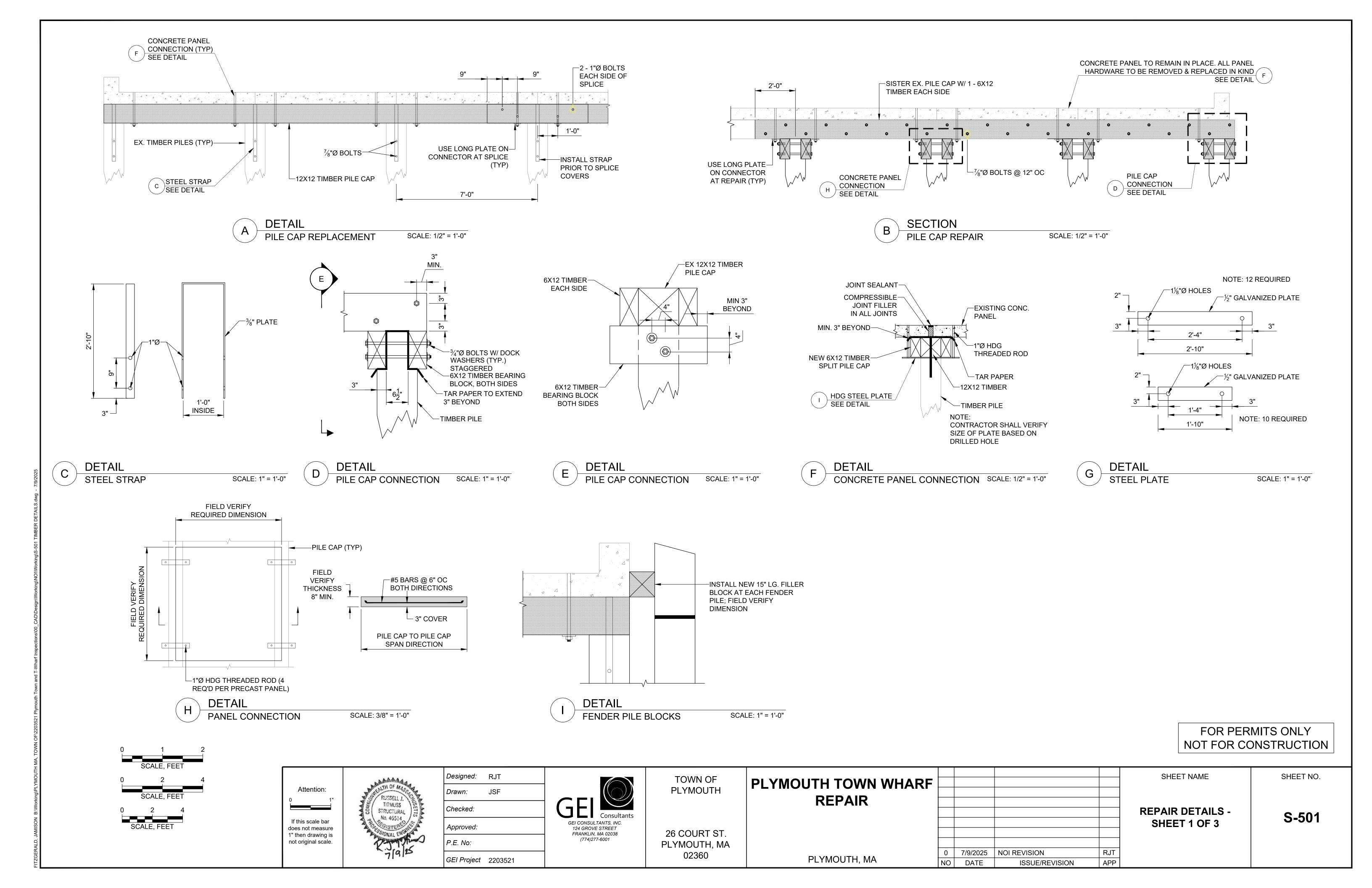
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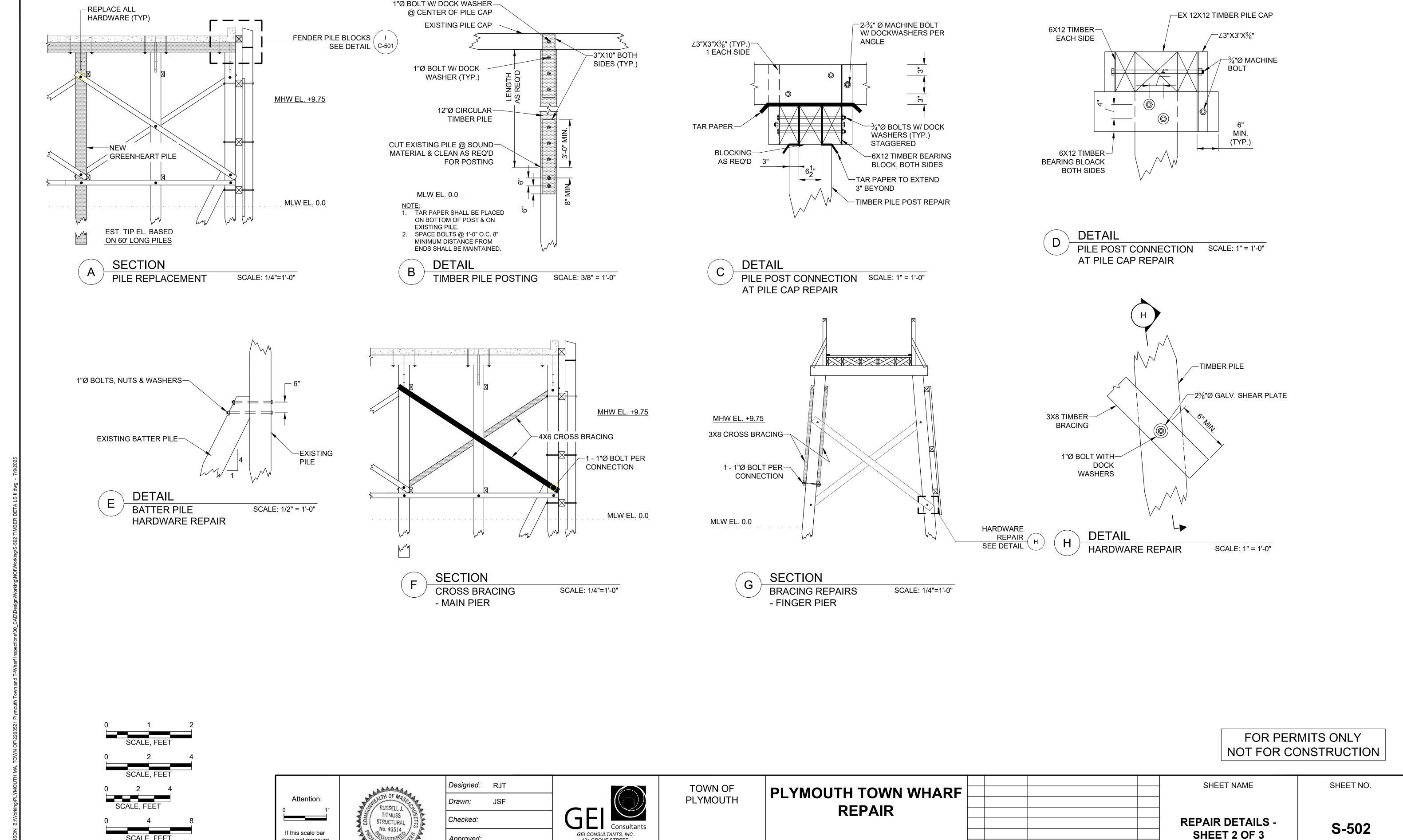












26 COURT ST.

PLYMOUTH, MA

02360

PLYMOUTH, MA

7/9/2025 NOI REVISION

DATE

ISSUE/REVISION

RJT

APP

Approved:

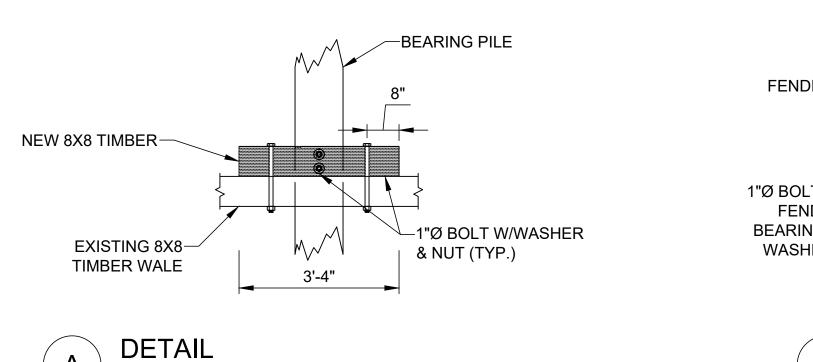
P.E. No:

GEI Project 2203521

does not measure

1" then drawing is not original scale.

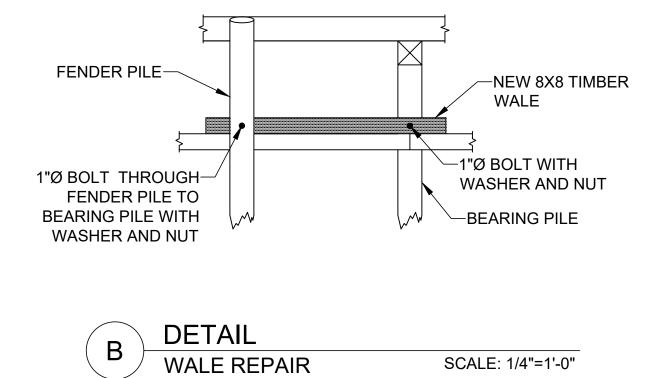
124 GROVE STREET FRANKLIN, MA 02038

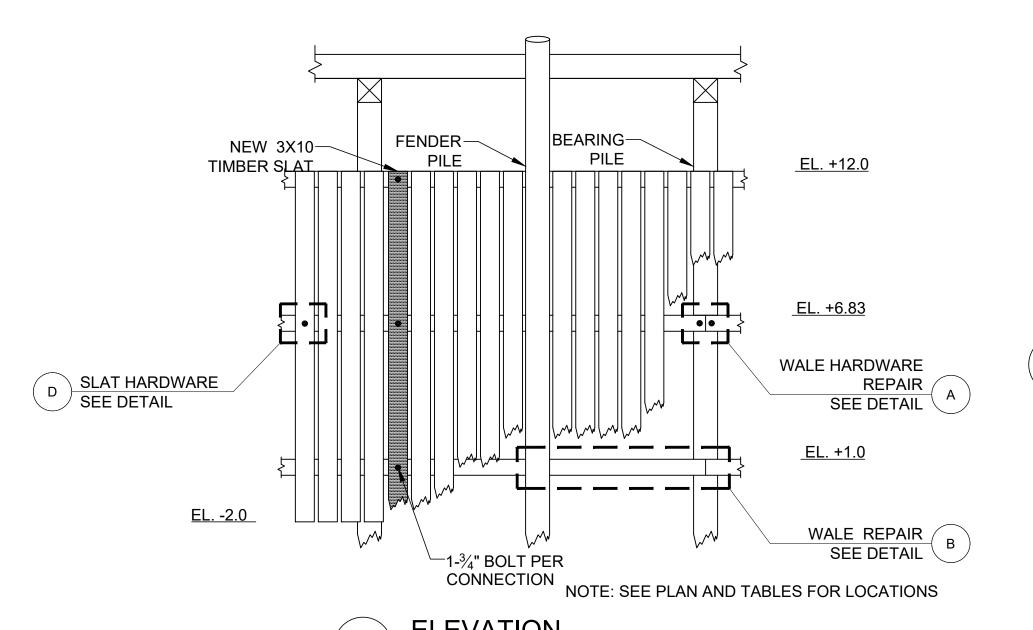


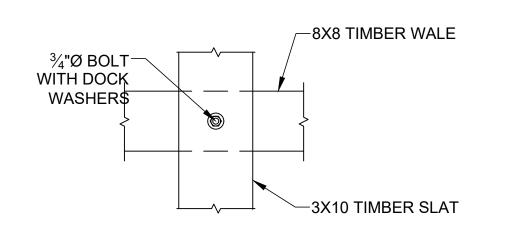
SCALE: 1/2" = 1'-0"

WALE HARDWARE

REPAIR



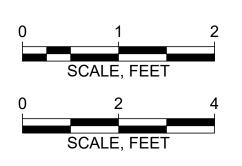


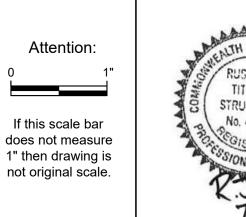


DETAIL SLAT HARDWARE REPAIR SCALE: 1" = 1'-0"

**ELEVATION** WAVE BARRIER REPAIRS SCALE: 1/4"=1'-0"

> FOR PERMITS ONLY NOT FOR CONSTRUCTION







Designed: RJT

GEI Project 2203521

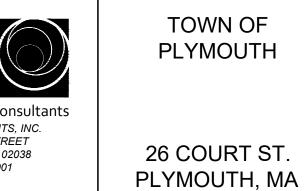
Drawn:

Checked:

Approved:

P.E. No:





02360

PLYMOUTH TOWN WHARI REPAIR
PLYMOUTH, MA

				SHEET NAME
				REPAIR DETAILS -
				SHEET 3 OF 3
	7/0/2025	NOI REVISION	RJT	
0	7/9/2025			
NO	DATE	ISSUE/REVISION	APP	

SHEET NO.

**S-503** 

#### **ATTACHMENT 4**

#### MASS DEP ORDER OF CONDITIONS

Mail L Gei Consultants Ire 124 Grove St Franklin, ma 02038 Attn: Carol McGillivray



Bk: 59515 Pg: 130 Page: 1 of 17 Recorded: 12/05/2024 12:39 PM ATTEST: John R. Buckley, Jr. Register Plymouth County Registry of Deeds



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388 MassDEP File #

eDEP Transaction # PCC-24-47

City/Town

#### A. General Information

Please note: this form has been modified with added space to accommodate the Registry of Deeds Requirements

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





1. From: Town of Plymo		
This issuance is for (check one):	a. 🛛 Order of Conditions	ь.   Amended Order of Conditions
3. To: Applicant:		
Chad	Hunte	г
a. First Name	b. Last	Name
Town of Plymouth Harb	pormaster	
c. Organization		
185 Water Street		
d. Mailing Address		
Plymouth	MA	02360
e. City/Town	f. State	e g. Zip Code
4. Property Owner (if differ	ent from applicant):	
a. First Name	b. Last	Name
c. Organization		
d. Mailing Address		
e. City/Town	f. State	e g. Zip Code
5. Project Location:		

**Plymouth** 

b. City/Town

d. Parcel/Lot Number

m <sup>42,552</sup> s

N/A

d 57

41

d. Latitude

Water Street

14A

a. Street Address

c. Assessors Map/Plat Number

Latitude and Longitude, if known:

d 39

e. Longitude



## WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388
MassDEP File #
eDEP Transaction #
PCC-24-47
City/Town

#### A. General Information (cont.)

6.		recorded at the Reg	•	,	ds for	(attach addition	nal in	form	nation if more than
	a. County 39570					b. Certificate Nun	nber (i	f regi	stered land)
	c. Book				_	d. Page			
	_	September 19, 202	24		Octob	er 15, 2024			Ostobor 20, 2024
7.	Dates:	a. Date Notice of Inter		ed			losed	30	C. Date of Issuance
8.	a. Date Notice of Intent Filed b. Date Public Hearing Closed c. Date of Issuance Final Approved Plans and Other Documents (attach additional plan or document references as needed):  Plymouth Town Wharf Repairs  a. Plan Title								
	GEI Consu	Itants, Inc.				Russell J. Titmi	iee		
	b. Prepared					c. Signed and Sta		hv	
	September	•				Varying	iiipeu	υу	
	d. Final Revis					e. Scale			
	Wharf Floa	t Expansion							September 11, 2024
	f. Additional I	Plan or Document Title						5 53	g. Date
1.	Following to provided in the areas in Protection	n this application are n which work is pro Act (the Act). Chec	bove nd pr	e-reference resented ed is sign I that app	ced No at the nificar oly:	otice of Intent a public hearing it to the following	and b I, this	Col	d on the information mmission finds that sts of the Wetlands
3.	_	Water Supply b.		Land Co	ontain	ing Shellfish	C.		Prevention of lution
l.	☐ Private	Water Supply e.		Fisherie	es		f.	∐ Wile	Protection of dlife Habitat
J.	Ground	dwater Supply h.	X	Storm D	Damag	e Prevention	i.		Flood Control
	This Comm	ission hereby finds	the p	oroject, as	s prop	osed, is: (check	one	of th	ne following boxes)
\pp	<b>roved</b> subj	ect to:							
	standards s be perform General Co that the foll	owing conditions we set forth in the wetled in accordance wo anditions, and any communitions in the submitted with the I	ands vith t other nodif	s regulation the Noticon r special ry or diffe	ons. T e of In condi r from	his Commission tent referenced tions attached the plans, spe	on or d abo to thi	ders ove, s Or	that all work shall the following der. To the extent



#### **WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388 MassDEP File #

eDEP Transaction # PCC-24-47 City/Town

#### B. Findings (cont.)

De	nied because:				
b.	the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. A description of the performance standards which the proposed work cannot meet is attached to this Order.				
C.	the information submitted by the applicant is not sufficient to describe the site, the work or the effect of the work on the interests identified in the Wetlands Protection Act.  Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).				
3.	Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a)  a. linear fee				
Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)					
Re	source Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4.	Bank	a, linear feet	b. linear feet	c. linear feet	d. linear feet
5. 6.	<ul><li>☐ Bordering</li><li>Vegetated Wetland</li><li>☐ Land Under</li><li>☐ Waterbodies and</li></ul>	a. square feet	b. square feet	c. square feet	d. square feet
	Motorwove	- 1	1		

Resource Area		Alteration	Alteration	Replacement	Replacement
4.	☐ Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
5. 6.	☐ Bordering Vegetated Wetland ☐ Land Under	a. square feet	b. square feet	c. square feet	d. square feet
	Waterbodies and Waterways	a. square feet	b. square feet	c. square feet	d. square feet
	•	e. c/y dredged	f. c/y dredged		
7.	☐ Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
	Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8.	☐ Isolated Land Subject to Flooding	a. square feet	b. square feet	<b>3</b>	
	Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9.	Riverfront Area	a. total sq. feet	b. total sq. feet		
	Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
	Sq ft between 100- 200 ft	g. square feet	h. square feet	i. square feet	j. square feet



#### **WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388

MassDEP File #

eDEP Transaction # PCC-24-47 City/Town

#### B. Findings (cont.)

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)					
		Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10.	Designated Port Areas	Indicate size un	der Land Unde	r the Ocean, belo	N
11.	<ul><li>✓ Land Under the Ocean</li></ul>	17,000 a. square feet	b. square feet		
		c. c/y dredged	d. c/y dredged		
12.	☐ Barrier Beaches	Indicate size un below	der Coastal Be	aches and/or Coa	stal Dunes
13.		1,000 a. square feet	b. square feet	cu yd	cu yd d. nourishment
14.	☐ Coastal Dunes	a. square feet	b. square feet	cu yd	cu yd
15.	☐ Coastal Banks	80 a. linear feet	b. linear feet		
16.	Rocky Intertidal Shores	a. square feet	b. square feet		
17.	☐ Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18.	☐ Land Under Salt Ponds	a. square feet	b. square feet	·	·
		c. c/y dredged	d. c/y dredged		
19.	☐ Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
20.	Fish Runs		or inland Land	nks, Inland Bank, Under Waterbodi	
21.	∠ Land Subject to Coastal Storm Flowage	a. c/y dredged 1,000 a. square feet	b. c/y dredged b. square feet		
22.	☐ Riverfront Area	a. total sq. feet	b. total sq. feet		
	Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
	Sq ft between 100- 200 ft	g. square feet	h. square feet	i. square feet	j. square feet



#### WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388

MassDEP File #

b. number of replacement stream crossings

eDEP Transaction # PCC-24-47 City/Town

#### B. Findings (cont.)

* #23. If the project is for	:
the purpose of	
restoring or	
enhancing a	
wetland	,
resource area	•
in addition to	
the square	
footage that	
has been	1
entered in	•
Section B.5.c	
(BVW) or	-
B.17.c (Salt	
Marsh) above,	-
please enter	
the additional	
amount here.	2

23.	Restoration/Enhancement *:	
	a. square feet of BVW	b. square feet of salt marsh
24.	Stream Crossing(s):	
	a. number of new stream crossings	b. number of replacement stream crossings

#### C. General Conditions Under Massachusetts Wetlands Protection Act

#### The following conditions are only applicable to Approved projects.

- 1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
- 2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
- This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
- 4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
  - a. The work is a maintenance dredging project as provided for in the Act; or
  - b. The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
  - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
- 5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
- 6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on 10-30-2027 unless extended in writing by the Department.
- 7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.



#### **WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388

MassDEP File #

eDEP Transaction # PCC-24-47

City/Town

#### C. General Conditions Under Massachusetts Wetlands Protection Act

- 8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
- 9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
- A sign shall be displayed at the site not less then two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]

"File Number

SE57-3388

- 11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
- 12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
- 13. The work shall conform to the plans and special conditions referenced in this order.
- 14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
- 15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
- 16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.



#### **WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388 MassDEP File #

eDEP Transaction #

City/Town

#### C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- 17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
- 18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.
- 19. The work associated with this Order (the "Project")
  (1) ☐ is subject to the Massachusetts Stormwater Standards
  (2) ☒ is NOT subject to the Massachusetts Stormwater Standards

## If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

- a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that: *i.* all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures; *ii.* as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;

iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;



#### WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388 MassDEP File #

eDEP Transaction # PCC-24-47 City/Town

#### C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

*iv.* all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

- c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement) for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:
  - i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and
  - ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.
- d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.
- e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 19(f) through 19(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 19(f) through 19(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.
- f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



#### **WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388 MassDEP File #

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#### C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- g) The responsible party shall:
  - Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
  - 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
  - Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- I) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.

# Massachusetts Department of Environmental Protection Bureau of Resource Protection – Wetland WPA Form 5 – Order of Conditions Massachusetts Wetlands Protection Act M.G.L. c. 131, § 40 and Town of Plymouth Wetlands Bylaw

DEP File Number: SE57-3388 Provided by DEP PCC File Number: PCC-24-47

C1.	Town	of I	Plymouth	Conditions	-	Chapter	196

Fin	dings				
	Flood storage capacity		Storm damage prevention	X	Erosion & sedimentation control
X	Water Pollution		Waste Disposal		Groundwater Aquifers
	Public water supplies		Private water supplies		Water Recharge Areas
	Fisheries		Shellfish		Wildlife Habitats
	Endangered plant species		Agricultural values	$\boxtimes$	Aesthetic Values
	Recreational Values Control of floodwater & runoff,	to ass	sure the continuation of the natural f	low p	attern of watercourses.
The	Town of Plymouth Conservation	n Coi	nmission has found it necessary to	includ	le these additional Conoral Condition

#### Project Management

for all Approved projects.

- 1. All construction must comply with the latest referenced plans and the conditions of this Order. Under this filing, no change in plan is permissible without prior written approval from the Commission. For any proposed change in the approved plans or in the work, the applicant shall inquire in writing of the Commission whether the change is substantial enough to require either an Amended Order of Conditions or a new Notice of Intent.
- 2. Copies of all required permits, including proof of recording of the Order from the Registry of Deeds (Book and Page No.), shall be submitted to the Commission prior to commencing any work on site.
- 3. The project engineer(s) and contractor(s) shall be provided with copies of this Order, the submitted Notice of Intent, and the above referenced plans and shall have these documents available on-site during construction.
- 4. Prior to Commencement of work with Conservation Jurisdiction, a pre-construction meeting shall be held amongst the Applicant's Engineer, Contractor and Conservation Staff to clearly delineate the responsibilities of the parties and clarify any ambiguities in this OOC.
- 5. The Conservation Commission shall be notified at least twenty-four (24) hours prior to commencement of the work. This notification must be in writing and sent by mail, electronically or hand delivered to the Conservation Office, Town Hall, 26 Court Street, Plymouth, MA 02360. This enables the Commission the opportunity to ensure all pre-construction conditions have been met.
- 6. This Order shall apply to and become the responsibility of the applicant, owner, their agent, successor or assignee.
- 7. No additional work shall be allowed in or within 100 feet of the wetland/resource area boundary, including but not limited to the cutting or removing, of vegetation or soil, unless it is specifically allowed by this Order and as is shown on the final approved plan, or unless it is first approved by the Conservation Commission.
- 8. Copies of all plans and/or other information received by the Commission for this project shall be submitted by the applicant, (via hard copy or email) to the Southeast Regional Office of the Department of Environmental Protection (DEP), 20 Riverside Drive, Route 105, Lakeville, MA 02347.

## Massachusetts Department of Environmental Protection Bureau of Resource Protection – Wetland WPA Form 5 – Order of Conditions Massachusetts Wetlands Protection Act M.G.L. c. 131, § 40 and Town of Plymouth Wetlands Bylaw

DEP File Number: SE57-3388 Provided by DEP PCC File Number: PCC-24-47

- 9. If work associated with this Order is subject to the Massachusetts Stormwater Policy Standards, then General Condition No. 19 (page 7) also becomes a part of this Order under the Town of Plymouth Wetland Bylaw.
- 10. If any unforeseen problems occur during construction that affect any of the statutory interests identified in MGL c. 13 1 §40 (3 10 CMR 10.00 et seq.) and/or the Town of Plymouth Wetlands By-Law, the Applicant shall notify the Conservation Commission upon discovery, and an immediate meeting shall be held between the Conservation Commission, the Applicant, the Applicant's Engineer, and the Contractor, and any other concerned parties, to determine the corrective measures to be employed. The Applicant shall then implement the agreed-upon corrective measures. In the event of a dispute between the meeting participants, the Commission's view shall prevail.

#### Sedimentation / Erosion Control

- 11. Prior to the commencement of any site activity, a Professional Engineer (PE), licensed by the Commonwealth of Massachusetts, shall inspect the installation of the erosion control barriers (ECB) for compliance with the final approved plan referenced (or mandated) by this Order of Conditions. The inspection results shall be submitted to the Conservation Commission in writing, signed and wet stamped by the PE who performed the inspection. No work can commence without this approval.
- 12. An extra 10% of ECB must be stored on site in the event of an emergency or storm.
- 13. The Contractor shall install ECB as shown on the plan referenced in this decision. The sedimentation barriers will also serve as the limit of work, and no work, disturbance, or alteration shall occur on the resource area side of the barrier except as described in these Conditions.
- 14. If siltation, erosion, or other adverse impacts to any resource areas occur, the Commission reserves the right to impose additional conditions as necessary to protect the interests of the Wetlands Protection Act and the Plymouth Wetlands Protection By-Law.
- 15. To assure the continued effective removal of sediments, the Contractor will inspect the barriers weekly and after each rainfall event to determine its condition. At the time of these inspections, accumulated sediments will be removed from the barriers and damaged barriers will be repaired or replaced as necessary. In no event shall silt be allowed to accumulate to a height greater than half of the height of the ECB. Any removed sediment will be disposed at a suitable location.
- 16. No ECB may be removed without the approval of the Commission or its staff.
- 17. All ECBs shall be removed prior to staff/commissioner site inspection of a COC request.

#### **Heavy Equipment**

- 18. All machinery deployed within Conservation jurisdiction shall use biodegradable hydraulic fluid. Documentation shall be submitted to the Conservation Commission prior to initiation of site activity.
- 19. No vehicles/heavy equipment/machinery shall be stored within wetland resource areas or the 100-foot buffer zone resource areas.
- 20. There shall be more than a total of 50 gallons of fuel (other than what is in vehicles) or maintenance chemicals relating to this construction stored on the site in an area subject to the Conservation Commission's jurisdiction at any one time. No routine servicing of vehicles used for this project shall be permitted on the site. The Conservation Commission and the Board of Health shall be notified prior to initiating any emergency repair on the site drainage system or wetland resource area.

## Massachusetts Department of Environmental Protection Bureau of Resource Protection – Wetland WPA Form 5 – Order of Conditions Massachusetts Wetlands Protection Act M.G.L. c. 131, § 40 and Town of Plymouth Wetlands Bylaw

DEP File Number: SE57-3388 Provided by DEP PCC File Number: PCC-24-47

21. Any leaks or spills of hydraulic fluid, gasoline, or other oils or hazardous material must be cleaned up immediately and disposed of at an appropriate off-site location in accordance with all federal, state, and local requirements and regulations. The Contractor must notify the Conservation Commission and the Board of Health within 24 hours of any spillage or leakage of oil or hazardous material, including appropriate amount of Speedy Dry on site.

#### Site Maintenance

- 22. Any fill used in connection with this project shall be clean fill, containing no trash, refuse, rubbish or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles or parts of any of the foregoing.
- 23. Any stockpiled or similar material must be enclosed within an erosion control barrier to prevent erosion or siltation migrating into resource areas or the undisturbed buffer zone.
- 24. The Contractor shall be responsible for removing and disposing of debris and excavated material to an off-site disposal area in accordance with all federal, state, and local requirements and regulations. Any excavated asphalt must be placed immediately on trucks and disposed of at an appropriate off-site location.
- 25. No debris, fill, and excavated material shall be stockpiled within 25 feet (horizontal distance) of the limit of work. At no time shall any debris or other material be buried or disposed of within wetland resource areas or the 100-foot buffer zone resource areas, other than fill that is shown on the above-referenced plans.
- 26. Any debris, sediment, or other material that falls into or otherwise enters the wetland resource area during the construction period must be immediately removed by hand.

#### **Certificate of Compliance**

- 27. Prior to the final inspection and before issuance of the Certificate of Compliance, the Engineer, or Consultant shall prepare an As-Built plan of the completed project work and attest to the Conservation Commission, in writing, that all the Conditions in this Order have been substantially complied with and the project, as constructed adheres to the approved plans and field changes on file with the Commission and/or any deviations.
- 28. All ECB's shall be removed from prior to staff / commissioner site inspection of a COC request.



## **WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
SE57-3388
MassDEP File #
eDEP Transaction #
PCC-24-47
City/Town

## D. Findings Under Municipal Wetlands Bylaw or Ordinance

1.	ls a	municipal wetlands bylaw or ordinance applicable? ☒ Yes ☐ No	
2.	The	Town of Plymouth hereby finds (check one Conservation Commission	that applies):
	a.	☐ that the proposed work cannot be conditioned to meet the standards municipal ordinance or bylaw, specifically:  CH 196 Town of Plymouth Wetlands Bylaw	set forth in a
		1. Municipal Ordinance or Bylaw	2. Citation
		Therefore, work on this project may not go forward unless and until a rev Intent is submitted which provides measures which are adequate to mee standards, and a final Order of Conditions is issued.	
	7,	that the following additional conditions are necessary to comply with a ordinance or bylaw:  Ch 196 Town of Plymouth Wetlands Bylaw	
		1. Municipal Ordinance or Bylaw	2. Citation
3.	concond the	Commission orders that all work shall be performed in accordance with t ditions and with the Notice of Intent referenced above. To the extent that ditions modify or differ from the plans, specifications, or other proposals s Notice of Intent, the conditions shall control.	the following ubmitted with
		special conditions relating to municipal ordinance or bylaw are as follows e space for additional conditions, attach a text document):	s (if you need



#### WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388 MassDEP File #

eDEP Transaction # PCC-24-47

City/Town

### E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

10-30-2024

1. Date of Issuance SIX (6)

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

& da	Sean Andersen, Chair
Signature /	Printed Name
Matte & Morrissale	Walter Morrison, III, Vice-Chair
Signature	Printed Name
120	Paul Churchill
Signature	Printed Name
M. C.	James F. Carpenter
Signature )	Printed Name
Vall Dent	Paul Denoncourt
Signature /	Printed Name
Maura R. Hahart	Maura Flaherty
Signature	Printed Name
	Amber Salvage
Signature	Printed Name
Signature	Printed Name
by hand delivery on	by certified mail, return receipt requested, on 10-30-2024
Date	Date



#### WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388

MassDEP File #

eDEP Transaction #

PCC-24-47 City/Town

#### F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, 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 MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed 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 Order. 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.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



### **WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: SE57-3388 MassDEP File #

eDEP Transaction # PCC-24-47

City/Town

#### **G. Recording Information**

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Consequation Commission		
Conservation Commission		
Detach on dotted line, have stamped by the Regis Commission.		submit to the Conservation
To:		
Town of Plymouth		
Conservation Commission		
Please be advised that the Order of Conditions for	r the Project at:	
Water Street	SE57-3388	
Project Location	MassDEP File Nu	mber
Has been recorded at the Registry of Deeds of:		
Plymouth		
County	Book	Page
for:		
Property Owner		
and has been noted in the chain of title of the affe	ected property in:	
Book	Page	
In accordance with the Order of Conditions issued	d on:	
Date		
If recorded land, the instrument number identifyin	a this transaction	is!
The service in the meant in the manner in th	g and adnocedar	10.
Instrument Number		
If registered land, the document number identifyir	a this transaction	ici
in registered land, the document number identifying	ig tills transaction	115,
Document Number		
Signature of Applicant		·

#### **Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetland

#### WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, § 40 and Town of Plymouth Wetlands Bylaw

DEP File Number SE57- 3388

Provided by DEP

PCC File Number PCC- 24-47

In addition to General Conditions and Additional Conditions, the Commission has found it necessary to include the following Special Conditions pursuant to the Massachusetts Wetlands Protection Act and the Town of Plymouth Wetlands Bylaw. The listed General Conditions, Findings and Additional Special Conditions are automatically part of this Order of Conditions.

#### **FINDINGS:**

A Notice of Intent to replace deteriorating piles, pile caps, bracing, wave fencing and concrete decking. Install a float at the northern terminus of the T-Wharf with 4 piles to secure it in place.

#### **SPECIAL CONDITIONS:**

None

#### **ATTACHMENT 5**

#### **MASSACHUSETTS PREVAILING WAGE RATES**



## 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: Plymouth City/Town: PLYMOUTH

Contract Number: 22532

Description of Work: Installation of concrete float & steel pipe mooring piles, installation of aluminum gangway, replacement and/or repair of timber pile caps,

wave fence and wale repairs, decking repairs

Job Location: Town Wharf, Water 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 subcontractors, 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.

Issue Date: 11/26/2025 Wage Request Number: 20251125200133 Page 1 of 36

Classification	<b>Effective Date</b>	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
(2 AXLE) DRIVER - EQUIPMENT	6/1/2025	\$40.95	\$15.57	\$20.17	\$0.00	\$0.00	\$76.69
TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	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	6/1/2025	\$41.02	\$15.57	\$20.17	\$0.00	\$0.00	\$76.76
TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2025	\$41.02	\$15.57	\$21.78	\$0.00	\$0.00	\$78.37
TEMPORENS JOHN COUNCIL NO. 10 ZONE B	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	00 \$0.00	\$82.31
(4 & 5 AXLE) DRIVER - EQUIPMENT	6/1/2025	\$41.14	\$15.57	\$20.17	\$0.00	\$0.00	\$76.88
TEAMSTERS JOINT COUNCIL NO. 10	12/1/2025	\$41.14	\$15.57	\$21.78	\$0.00	\$0.00	\$78.49
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	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	6/1/2025	\$40.59	\$10.15	\$9.50	\$9.11	\$0.00	\$69.35
LABORERS	12/1/2025	\$41.97	\$10.15	\$9.50	\$9.11	\$0.00	\$70.73
LABORERS - ZONE 2	6/1/2026	\$43.41	\$10.15	\$9.50	\$9.11	\$0.00	\$72.17
	12/1/2026	\$44.85	\$10.15	\$9.50	\$9.11	\$0.00	\$73.61
	6/1/2027	\$46.30	\$10.15	\$9.50	\$9.11	\$0.00	\$75.06
	12/1/2027	\$47.75	\$10.15	\$9.50	\$9.11	\$0.00	\$76.51
	6/1/2028	\$49.25	\$10.15	\$9.50	\$9.11	\$0.00	\$78.01
	12/1/2028	\$50.75	\$10.15	\$9.50	\$9.11	\$0.00	\$79.51
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY)	6/1/2025	\$40.59	\$10.15	\$9.50	\$9.21	\$0.00	\$69.45
LABORERS	12/1/2025	\$41.97	\$10.15	\$9.50	\$9.21	\$0.00	\$70.83
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$10.15	\$9.50	\$9.21	\$0.00	\$72.27
	12/1/2026	\$44.85	\$10.15	\$9.50	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASBESTOS REMOVER - PIPE / MECH. EQUIPT.	6/1/2025	\$43.80	\$14.50	\$4.30	\$6.75	\$0.00	\$69.35
HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	12/1/2025	\$44.80	\$14.50	\$4.30	\$6.75	\$0.00	\$70.35
ASPHALT RAKER	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	12/1/2020	Ψ11.33	ψ10.13	Ψ2.50	Ψ7.11	φυ.υυ	Ψ1.2.11

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Tota Rat
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.5
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.0
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.5
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.0
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY)	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.21	\$0.00	\$68.9
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.21	\$0.00	\$70.33
ENDORERS - ZONE 2 (IEAV T & HIGHWAT)	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.21	\$0.00	\$71.7
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.21	\$0.00	\$73.2
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	6/1/2025	\$57.83	\$16.05	\$13.25	\$3.25	\$0.00	\$90.3
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.28	\$16.05	\$13.25	\$3.25	\$0.00	\$91.8
OLEMATINO ENGINEERO EOCAL 4	6/1/2026	\$60.58	\$16.05	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.03	\$16.05	\$13.25	\$3.25	\$0.00	\$94.5
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER	6/1/2025	\$57.83	\$16.05	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.28	\$16.05	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.58	\$16.05	\$13.25	\$3.25	\$0.00	\$93.1
	12/1/2026	\$62.03	\$16.05	\$13.25	\$3.25	\$0.00	\$94.5
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.83
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.2
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.6
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.1
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.5
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.0
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.5
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.0
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER	6/1/2025	\$40.59	\$10.15	\$9.50	\$9.11	\$0.00	\$69.3
LABORERS LABORERS - ZONE 2	12/1/2025	\$41.97	\$10.15	\$9.50	\$9.11	\$0.00	\$70.7
ENDORERS ZOIVE 2	6/1/2026	\$43.41	\$10.15	\$9.50	\$9.11	\$0.00	\$72.1
	12/1/2026	\$44.85	\$10.15	\$9.50	\$9.11	\$0.00	\$73.6
	6/1/2027	\$46.30	\$10.15	\$9.50	\$9.11	\$0.00	\$75.0
	12/1/2027	\$47.75	\$10.15	\$9.50	\$9.11	\$0.00	\$76.5
	6/1/2028	\$49.25	\$10.15	\$9.50	\$9.11	\$0.00	\$78.0
	12/1/2028	\$50.75	\$10.15	\$9.50	\$9.11	\$0.00	\$79.5
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY &	6/1/2025	\$40.59	\$10.15	\$9.50	\$9.21	\$0.00	\$69.4
HIGHWAY) LABORERS	12/1/2025	\$41.97	\$10.15	\$9.50	\$9.21	\$0.00	\$70.8
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$43.41	\$10.15	\$9.50	\$9.21	\$0.00	\$72.2
	12/1/2026	\$44.85	\$10.15	\$9.50	\$9.21	\$0.00	\$73.7
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							

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

Appro	entice: BOILER M	IAKER					
Effect	tive Date: 1/1/2024	ļ.					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
2	65.00	\$31.28	\$7.07	\$9.32	\$3.90	\$0.00	\$51.57
3	70.00	\$33.68	\$7.07	\$10.03	\$4.20	\$0.00	\$54.98
4	75.00	\$36.09	\$7.07	\$10.74	\$4.50	\$0.00	\$58.40
5	80.00	\$38.50	\$7.07	\$11.45	\$4.80	\$0.00	\$61.82
6	85.00	\$40.90	\$7.07	\$12.18	\$5.10	\$0.00	\$65.25
7	90.00	\$43.31	\$7.07	\$12.88	\$5.40	\$0.00	\$68.66
8	95.00	\$45.71	\$7.07	\$13.62	\$5.70	\$0.00	\$72.10

#### Apprentice to Journeyworker Ratio: 1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY	8/1/2025	\$67.95	\$11.49	\$15.57	\$8.02	\$0.00	\$103.03
WATERPROOFING) BRICKLAYERS LOCAL 3	2/1/2026	\$69.30	\$11.49	\$15.57	\$8.02	\$0.00	\$104.38
BRICKLAYERS LOCAL 3 (QUINCY)	8/1/2026	\$71.50	\$11.49	\$15.57	\$8.02	\$0.00	\$106.58
	2/1/2027	\$72.90	\$11.49	\$15.57	\$8.02	\$0.00	\$107.98

	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	\$33.98	\$11.49	\$15.57	\$8.02	\$0.00	\$69.06					
2	60.00	\$40.77	\$11.49	\$15.57	\$8.02	\$0.00	\$75.85					
3	70.00	\$47.57	\$11.49	\$15.57	\$8.02	\$0.00	\$82.65					
4	80.00	\$54.36	\$11.49	\$15.57	\$8.02	\$0.00	\$89.44					
5	90.00	\$61.16	\$11.49	\$15.57	\$8.02	\$0.00	\$96.24					

••	entice: BRICK/ST tive Date: 2/1/2026	ONE/ARTIFICIAL MASO	ONRY (INCL. M	ASONRY WATE	RPROOFING	)	
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$34.65	\$11.49	\$15.57	\$8.02	\$0.00	\$69.73
2	60.00	\$41.58	\$11.49	\$15.57	\$8.02	\$0.00	\$76.66
3	70.00	\$48.51	\$11.49	\$15.57	\$8.02	\$0.00	\$83.59
4	80.00	\$55.44	\$11.49	\$15.57	\$8.02	\$0.00	\$90.52
5	90.00	\$62.37	\$11.49	\$15.57	\$8.02	\$0.00	\$97.45

#### Apprentice to Journeyworker Ratio: 1:5

BULLDOZER/GRADER/SCRAPER	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
CAISSON & UNDERPINNING BOTTOM MAN	6/1/2025	\$48.35	\$10.15	\$9.50	\$9.80	\$0.00	\$77.80
LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2025	\$49.85	\$10.15	\$9.50	\$9.80	\$0.00	\$79.30
LABORERS - POUNDATION AND MARINE	6/1/2026	\$51.40	\$10.15	\$9.50	\$9.80	\$0.00	\$80.85
	12/1/2026	\$52.90	\$10.15	\$9.50	\$9.80	\$0.00	\$82.35
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING LABORER	6/1/2025	\$47.20	\$10.15	\$9.50	\$9.80	\$0.00	\$76.65
LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2025	\$48.70	\$10.15	\$9.50	\$9.80	\$0.00	\$78.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$50.25	\$10.15	\$9.50	\$9.80	\$0.00	\$79.70
	12/1/2026	\$51.75	\$10.15	\$9.50	\$9.80	\$0.00	\$81.20
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN	6/1/2025	\$47.53	\$10.15	\$9.50	\$9.80	\$0.00	\$76.98
LABORERS	12/1/2025	\$49.03	\$10.15	\$9.50	\$9.80	\$0.00	\$78.48
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$50.58	\$10.15	\$9.50	\$9.80	\$0.00	\$80.03
	12/1/2026	\$52.08	\$10.15	\$9.50	\$9.80	\$0.00	\$81.53
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS ZONE 2	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
CARPENTER	9/1/2025	\$50.35	\$10.33	\$11.47	\$8.50	\$0.00	\$80.65
CAPPENTERS  CAPPENTERS ZONE 2 (Factors Massachusatts)	3/1/2026	\$51.60	\$10.33	\$11.47	\$8.50	\$0.00	\$81.90
CARPENTERS -ZONE 2 (Eastern Massachusetts)	9/1/2026	\$52.85	\$10.33	\$11.47	\$8.50	\$0.00	\$83.15
	3/1/2027	\$54.10	\$10.33	\$11.47	\$8.50	\$0.00	\$84.40

Appr	entice: CARPENT	ER					
Effect	tive Date: 9/1/2025						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$22.66	\$10.33	\$0.00	\$1.73	\$0.00	\$34.72
2	45.00	\$22.66	\$10.33	\$0.00	\$1.73	\$0.00	\$34.72
3	55.00	\$27.69	\$10.33	\$0.00	\$3.40	\$0.00	\$41.42
4	55.00	\$27.69	\$10.33	\$0.00	\$3.40	\$0.00	\$41.42
5	70.00	\$35.25	\$10.33	\$11.41	\$5.10	\$0.00	\$62.09
6	70.00	\$35.25	\$10.33	\$11.41	\$5.10	\$0.00	\$62.09
7	80.00	\$40.28	\$10.33	\$11.44	\$6.80	\$0.00	\$68.85
8	80.00	\$40.28	\$10.33	\$11.44	\$6.80	\$0.00	\$68.85

Classification Effective Date Base Wage Health Pension Annuity Unemployment Rate

Appro	entice: CARPENT	ER					
Effect	ive Date: 3/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$23.22	\$10.33	\$0.00	\$1.73	\$0.00	\$35.28
2	45.00	\$23.22	\$10.33	\$0.00	\$1.73	\$0.00	\$35.28
3	55.00	\$28.38	\$10.33	\$0.00	\$3.40	\$0.00	\$42.11
4	55.00	\$28.38	\$10.33	\$0.00	\$3.40	\$0.00	\$42.11
5	70.00	\$36.12	\$10.33	\$11.41	\$5.10	\$0.00	\$62.96
6	70.00	\$36.12	\$10.33	\$11.41	\$5.10	\$0.00	\$62.96
7	80.00	\$41.28	\$10.33	\$11.44	\$6.80	\$0.00	\$69.85
8	80.00	\$41.28	\$10.33	\$11.44	\$6.80	\$0.00	\$69.85

\$7.02

\$7.02

\$3.80

\$3.80

\$1.00

\$1.00

\$0.00

\$0.00

\$39.57

\$40.67

Apprentice to Journeyworker Ratio: 1:5

10/1/2025

10/1/2026

\$27.75

\$28.85

CARPENTERS CARPENTERS-ZONE 3 (Wood Frame)

All Aspects of New Wood Frame Work

Appro	entice: CARPEN	TER WOOD FRAME					
Effect	tive Date: 10/1/20	25					
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

Appr	entice: CARPENT	ER WOOD FRAME					
Effect	tive Date: 10/1/202	6					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	60.00	\$17.31	\$7.02	\$0.00	\$0.00	\$0.00	\$24.33
2	60.00	\$17.31	\$7.02	\$0.00	\$0.00	\$0.00	\$24.33
3	65.00	\$18.75	\$7.02	\$0.00	\$1.00	\$0.00	\$26.77
4	70.00	\$20.20	\$7.02	\$0.00	\$1.00	\$0.00	\$28.22
5	75.00	\$21.64	\$7.02	\$3.80	\$1.00	\$0.00	\$33.46
6	80.00	\$23.08	\$7.02	\$3.80	\$1.00	\$0.00	\$34.90
7	85.00	\$24.52	\$7.02	\$3.80	\$1.00	\$0.00	\$36.34
8	90.00	\$25.97	\$7.02	\$3.80	\$1.00	\$0.00	\$37.79

Apprentice to Journeyworker Ratio: 1:5

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING	7/1/2024	\$49.19	\$13.35	\$16.43	\$7.78	\$1.80	\$88.55
BRICKLAYERS LOCAL 3							
BRICKLAYERS LOCAL 3 (QUINCY)							

Appr	entice: CEMENT l	MASONRY/PLASTERING	G				
Effect	tive 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

#### Apprentice to Journeyworker Ratio: 1:3

CHAIN SAW OPERATOR	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	6/1/2025	\$59.01	\$16.05	\$13.25	\$3.25	\$0.00	\$91.56
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$60.48	\$16.05	\$13.25	\$3.25	\$0.00	\$93.03
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$61.81	\$16.05	\$13.25	\$3.25	\$0.00	\$94.36
	12/1/2026	\$63.29	\$16.05	\$13.25	\$3.25	\$0.00	\$95.84
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
COMPRESSOR OPERATOR	6/1/2025	\$37.02	\$16.05	\$13.25	\$3.25	\$0.00	\$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$37.97	\$16.05	\$13.25	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$38.83	\$16.05	\$13.25	\$3.25	\$0.00	\$71.38
	12/1/2026	\$39.78	\$16.05	\$13.25	\$3.25	\$0.00	\$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
DELEADER (BRIDGE)	7/1/2025	\$58.51	\$10.30	\$11.95	\$12.50	\$0.00	\$93.26
PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.60	\$0.00	\$94.51

Appro	entice: DELEADE	ER (BRIDGE)					
Effect	tive Date: 7/1/2025	5					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.26	\$10.30	\$0.00	\$0.00	\$0.00	\$39.56

Construction									
Classification			Effective Date Ba	ise Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	Appro	entice: DELEADE	R (BRIDGE)						
	Effect	ive Date: 7/1/2025							
			Apprentice					Supplemental	Total
	Step	Percent	Base Wage	]	Health	Pension	Annuity	Unemployment	Rate
	2	55.00	\$32.18		\$10.30	\$0.00	\$6.88	\$0.00	\$49.36
	3	60.00	\$35.11		\$10.30	\$0.00	\$7.50	\$0.00	\$52.91
	4	65.00	\$38.03		\$10.30	\$0.00	\$8.13	\$0.00	\$56.46
	5	70.00	\$40.96		\$10.30	\$11.95	\$8.75	\$0.00	\$71.96
	6	75.00	\$43.88		\$10.30	\$11.95	\$9.38	\$0.00	\$75.51
	7	80.00	\$46.81		\$10.30	\$11.95	\$10.00	\$0.00	\$79.06
	8	90.00	\$52.66		\$10.30	\$11.95	\$11.25	\$0.00	\$86.16
	Appro	entice: DELEADE	R (BRIDGE)						
		ive Date: 1/1/2026	- /						
	Step	Percent	Apprentice Base Wage	1	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1	50.00	\$29.78		\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
	2	55.00	\$32.76		\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
	3	60.00	\$35.74		\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
	4	65.00	\$38.71		\$10.35	\$0.00	\$8.19	\$0.00	\$57.25
	5	70.00	\$41.69		\$10.35	\$12.00	\$8.82	\$0.00	\$72.86
	6	75.00	\$44.67		\$10.35	\$12.00	\$9.45	\$0.00	\$76.47
	7	80.00	\$47.65		\$10.35	\$12.00	\$10.08	\$0.00	\$80.08
	8	90.00	\$53.60		\$10.35	\$12.00	\$11.34	\$0.00	\$87.29
	Appre	ntice to Journeyw	orker Ratio: 1:1						
DEMO: ADZEMAN			6/2/2025	\$47.25	\$10.15	\$9.50	\$9.65	\$0.00	\$76.55
LABORERS ZONE 2			12/1/2025	\$48.75	\$10.15	\$9.50	\$9.65	\$0.00	\$78.05
LABORERS - ZONE 2			6/1/2026	\$50.30	\$10.15	\$9.50	\$9.65	\$0.00	\$79.60
			12/7/2026	\$51.80	\$10.15	\$9.50	\$9.65	\$0.00	\$81.10
			6/7/2027	\$53.40	\$10.15	\$9.50	\$9.65	\$0.00	\$82.70
			12/6/2027	\$55.00	\$10.15	\$9.50	\$9.65	\$0.00	\$84.30
			6/5/2028	\$56.68	\$10.15	\$9.50	\$9.65	\$0.00	\$85.98
For apprentice rates see "Apprentice- LAB	ORER"		12/4/2028	\$58.35	\$10.15	\$9.50	\$9.65	\$0.00	\$87.65
DEMO: BACKHOE/LOADER/HAMMER LABORERS	R OPERA	TOR	6/2/2025	\$48.25	\$10.15	\$9.50	\$9.65	\$0.00	\$77.55
LABORERS - ZONE 2			12/1/2025	\$49.75	\$10.15	\$9.50	\$9.65	\$0.00	\$79.05
			6/1/2026	\$51.30	\$10.15	\$9.50	\$9.65	\$0.00	\$80.60
			12/7/2026	\$52.80	\$10.15	\$9.50	\$9.65	\$0.00	\$82.10
			6/7/2027	\$54.40	\$10.15	\$9.50 \$0.50	\$9.65 \$0.65	\$0.00	\$83.70
			12/6/2027	\$56.00 \$57.68	\$10.15 \$10.15	\$9.50 \$9.50	\$9.65 \$9.65	\$0.00	\$85.30
			6/5/2028	\$57.68	\$10.15	\$9.50	\$9.65	\$0.00	\$86.98
			12/4/2029	\$50.25	¢10.15	¢0.50	¢0 45	የሰ ሰስ	QQQ 25
For apprentice rates see "Apprentice- LAB	ORER"		12/4/2028	\$59.35	\$10.15	\$9.50	\$9.65	\$0.00	\$88.65

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	12/1/2025	\$49.50	\$10.15	\$9.50	\$9.65	\$0.00	\$78.80
LABORERS - ZONE 2	6/1/2026	\$51.05	\$10.15	\$9.50	\$9.65	\$0.00	\$80.35
	12/7/2026	\$52.55	\$10.15	\$9.50	\$9.65	\$0.00	\$81.85
	6/7/2027	\$54.15	\$10.15	\$9.50	\$9.65	\$0.00	\$83.45
	12/6/2027	\$55.75	\$10.15	\$9.50	\$9.65	\$0.00	\$85.05
	6/5/2028	\$57.43	\$10.15	\$9.50	\$9.65	\$0.00	\$86.73
	12/4/2028	\$59.10	\$10.15	\$9.50	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"							
DEMO: CONCRETE CUTTER/SAWYER	6/2/2025	\$48.25	\$10.15	\$9.50	\$9.65	\$0.00	\$77.55
LABORERS	12/1/2025	\$49.75	\$10.15	\$9.50	\$9.65	\$0.00	\$79.05
LABORERS - ZONE 2	6/1/2026	\$51.30	\$10.15	\$9.50	\$9.65	\$0.00	\$80.60
	12/7/2026	\$52.80	\$10.15	\$9.50	\$9.65	\$0.00	\$82.10
	6/7/2027	\$54.40	\$10.15	\$9.50	\$9.65	\$0.00	\$83.70
	12/6/2027	\$56.00	\$10.15	\$9.50	\$9.65	\$0.00	\$85.30
	6/5/2028	\$57.68	\$10.15	\$9.50	\$9.65	\$0.00	\$86.98
	12/4/2028	\$59.35	\$10.15	\$9.50	\$9.65	\$0.00	\$88.65
For apprentice rates see "Apprentice- LABORER"			-				,
DEMO: JACKHAMMER OPERATOR	6/2/2025	\$48.00	\$10.15	\$9.50	\$9.65	\$0.00	\$77.30
LABORERS	12/1/2025	\$49.50	\$10.15	\$9.50	\$9.65	\$0.00	\$78.80
LABORERS - ZONE 2	6/1/2026	\$51.05	\$10.15	\$9.50	\$9.65	\$0.00	\$80.35
	12/7/2026	\$52.55	\$10.15	\$9.50	\$9.65	\$0.00	\$81.85
	6/7/2027	\$54.15	\$10.15	\$9.50	\$9.65	\$0.00	\$83.45
	12/6/2027	\$55.75	\$10.15	\$9.50	\$9.65	\$0.00	\$85.05
	6/5/2028	\$57.43	\$10.15	\$9.50	\$9.65	\$0.00	\$86.73
	12/4/2028	\$59.10	\$10.15	\$9.50	\$9.65	\$0.00	\$88.40
For apprentice rates see "Apprentice- LABORER"	12/ 1/2020	Ψ53.10	Ψ10.10	ψ,	Ψ>.00	φοιου	400110
DEMO: WRECKING LABORER	6/2/2025	\$47.25	\$10.15	\$9.50	\$9.65	\$0.00	\$76.55
LABORERS	12/1/2025	\$48.75	\$10.15	\$9.50	\$9.65	\$0.00	\$78.05
LABORERS - ZONE 2	6/1/2026	\$50.30	\$10.15	\$9.50	\$9.65	\$0.00	\$79.60
	12/7/2026	\$51.80	\$10.15	\$9.50	\$9.65	\$0.00	\$81.10
	6/7/2027	\$53.40	\$10.15	\$9.50	\$9.65	\$0.00	\$82.70
	12/6/2027	\$55.00	\$10.15	\$9.50	\$9.65	\$0.00	\$84.30
	6/5/2028	\$56.68	\$10.15	\$9.50	\$9.65	\$0.00	\$85.98
	12/4/2028	\$58.35	\$10.15	\$9.50	\$9.65	\$0.00	\$87.65
For apprentice rates see "Apprentice- LABORER"	12/ 1/2020	ψ50.55	Ψ10.13	ψ2.50	Ψ7.03	φο.σσ	ψ07.02
DIRECTIONAL DRILL MACHINE OPERATOR	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4		\$58.62 \$59.90			\$3.25 \$3.25		\$91.17
	6/1/2026 12/1/2026	\$59.90 \$61.34	\$16.05 \$16.05	\$13.25 \$13.25	\$3.25 \$3.25	\$0.00 \$0.00	\$92.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/1/2020	φυ1.54	φ10.03	φ13.23	φ3.23	φυ.υυ	φ <b>73.</b> 65
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)	0/1/2024	ψ/0.11	Ψ10.00	ψ11.U2	φ10.04	φ0.00	ψ107.00
as of 8-1-24, Apprentices with diving licenses begin at second year. %	of Diver wage 70/8	60/90 2A \$69.83,	3A \$91.79,4A	\$102.14 Total	Rate		

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
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 Tot	al Rate		
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	\$83.69	\$10.08	\$11.62	\$12.67	\$0.00	\$118.06
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1) For apprentice rates see "Apprentice- PILE DRIVER"	8/1/2024	\$117.16	\$10.08	\$11.62	\$12.67	\$0.00	\$151.53
DRAWBRIDGE OPERATOR (Construction) DRAWBRIDGE - SEIU LOCAL 888 DRAWBRIDGE - SEIU LOCAL 888	7/1/2020	\$26.77	\$6.67	\$3.93	\$0.00	\$0.16	\$37.53
ELECTRICIAN ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2025 9/1/2026	\$52.25 \$54.72	\$12.25 \$12.50	\$14.86 \$15.56	\$3.75 \$4.00	\$0.00 \$0.00	\$83.11 \$86.78

Appro	entice: ELECTRIC	CIAN					
Effect	tive 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

Appr	entice: ELECTRIC	CIAN					
Effect	tive Date: 9/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	40.00	\$21.89	\$12.50	\$0.66	\$0.00	\$0.00	\$35.05
2	45.00	\$24.62	\$12.50	\$0.74	\$0.00	\$0.00	\$37.86
3	50.00	\$27.36	\$12.50	\$0.82	\$0.00	\$0.00	\$40.68
4	55.00	\$30.10	\$12.50	\$6.92	\$2.75	\$0.00	\$52.27
5	60.00	\$32.83	\$12.50	\$7.54	\$2.75	\$0.00	\$55.62
6	65.00	\$35.57	\$12.50	\$8.18	\$2.75	\$0.00	\$59.00
7	70.00	\$38.30	\$12.50	\$8.81	\$2.75	\$0.00	\$62.36
8	75.00	\$41.04	\$12.50	\$9.43	\$2.75	\$0.00	\$65.72

Apprentice to Journeyworker Ratio: 2:3

Issue Date: 11/26/2025

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Unemployment	Rate	
ELEVATOR CONSTRUCTOR	1/1/2025	\$74.17	\$16.28	\$10.96	\$10.40	\$0.00	\$111.81	
ELEVATOR CONSTRUCTORS LOCAL 4 ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2026	\$77.26	\$16.38	\$11.06	\$10.70	\$0.00	\$115.40	
ELEVATOR CONSTRUCTORS ESCAL 4	1/1/2027	\$80.55	\$16.48	\$11.16	\$11.00	\$0.00	\$119.19	

Appro	entice: ELEVATO	OR CONSTRUCTOR					
Effect	tive Date: 1/1/2025	;					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$37.09	\$0.00	\$0.00	\$0.00	\$0.00	\$37.09
2	55.00	\$40.79	\$16.28	\$10.96	\$10.40	\$0.00	\$78.43
3	65.00	\$48.21	\$16.28	\$10.96	\$10.40	\$0.00	\$85.85
4	70.00	\$51.92	\$16.28	\$10.96	\$10.40	\$0.00	\$89.56
5	80.00	\$59.34	\$16.28	\$10.96	\$10.40	\$0.00	\$96.98

Appro	entice: ELEVATO	R CONSTRUCTOR					
Effect	tive Date: 1/1/2026	i					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$38.63	\$0.00	\$0.00	\$0.00	\$0.00	\$38.63
2	55.00	\$42.49	\$16.38	\$11.06	\$10.70	\$0.00	\$80.63
3	65.00	\$50.22	\$16.38	\$11.06	\$10.70	\$0.00	\$88.36
4	70.00	\$54.08	\$16.38	\$11.06	\$10.70	\$0.00	\$92.22
5	80.00	\$61.81	\$16.38	\$11.06	\$10.70	\$0.00	\$99.95

#### Apprentice to Journeyworker Ratio: 1:1

ELEVATOR CONSTRUCTOR HELPER	1/1/2025	\$51.92	\$16.28	\$10.96	\$10.40	\$0.00	\$89.56
ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2026	\$54.08	\$16.38	\$11.06	\$10.07	\$0.00	\$91.59
ELEVATOR CONSTRUCTORS LOCAL 4	1/1/2027	\$56.39	\$16.48	\$11.16	\$11.00	\$0.00	\$95.03
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"							
FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.21	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)							
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	11/1/2025	\$53.76	\$15.85	\$13.15	\$3.25	\$0.00	\$86.01
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$55.20	\$15.85	\$13.15	\$3.25	\$0.00	\$87.45
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$56.49	\$15.85	\$13.15	\$3.25	\$0.00	\$88.74
	5/1/2027	\$57.92	\$15.85	\$13.15	\$3.25	\$0.00	\$90.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	11/1/2025	\$55.37	\$15.85	\$13.15	\$3.25	\$0.00	\$87.62
OPERATING ENGINEERS LOCAL 4	5/1/2026	\$56.82	\$15.85	\$13.15	\$3.25	\$0.00	\$89.07
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$58.12	\$15.85	\$13.15	\$3.25	\$0.00	\$90.37
	5/1/2027	\$59.57	\$15.85	\$13.15	\$3.25	\$0.00	\$91.82
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	11/1/2025	\$26.23	\$15.85	\$13.15	\$3.25	\$0.00	\$58.48
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	5/1/2026	\$27.08	\$15.85	\$13.15	\$3.25	\$0.00	\$59.33
OPERATING ENGINEERS LOCAL 4	11/1/2026	\$27.84	\$15.85	\$13.15	\$3.25	\$0.00	\$60.09
	5/1/2027	\$28.69	\$15.85	\$13.15	\$3.25	\$0.00	\$60.94
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FIRE ALARM INSTALLER	9/1/2025	\$52.25	\$12.25	\$14.86	\$3.75	\$0.00	\$83.11
ELECTRICIANS LOCAL 223 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	9/1/2025	\$52.25	\$12.25	\$14.86	\$3.75	\$0.00	\$83.11
/ COMMISSIONING 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 TEC	CHNICIAN"						
FIREMAN (ASST. ENGINEER)	6/1/2025	\$46.52	\$16.05	\$13.25	\$3.25	\$0.00	\$79.07
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	\$47.69	\$16.05	\$13.25	\$3.25	\$0.00	\$80.24
OLEMATINO ENGLISERO EGGLE I	6/1/2026	\$48.75	\$16.05	\$13.25	\$3.25	\$0.00	\$81.30
	12/1/2026	\$49.93	\$16.05	\$13.25	\$3.25	\$0.00	\$82.48
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
FLAGGER & SIGNALER (HEAVY & HIGHWAY)	6/1/2025	\$28.09	\$10.15	\$9.50	\$9.21	\$0.00	\$56.95
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	\$28.09	\$10.15	\$9.50	\$9.21	\$0.00	\$56.95
LABORERS - ZONE 2 (HEAV I & HIGHWAT)	6/1/2026	\$29.21	\$10.15	\$9.50	\$9.21	\$0.00	\$58.07
	12/1/2026	\$29.21	\$10.15	\$9.50	\$9.21	\$0.00	\$58.07
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)	)						
FLOORCOVERER	9/1/2025	\$57.74	\$10.33	\$11.47	\$8.80	\$0.00	\$88.34
FLOORCOVERERS LOCAL 2168 FLOORCOVERERS LOCAL 2168 ZONE I	3/1/2026	\$59.24	\$10.33	\$11.47	\$8.80	\$0.00	\$89.84
PLOORCO VERERS LOCAL 2108 ZOINE I	9/1/2026	\$60.74	\$10.33	\$11.47	\$8.80	\$0.00	\$91.34
	3/1/2027	\$62.24	\$10.33	\$11.47	\$8.80	\$0.00	\$92.84

Appr	entice: FLOORCO	VERER					
Effect	tive Date: 9/1/2025						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$25.98	\$10.33	\$0.00	\$1.76	\$0.00	\$38.07
2	45.00	\$25.98	\$10.33	\$0.00	\$1.76	\$0.00	\$38.07
3	55.00	\$31.76	\$10.33	\$0.00	\$3.52	\$0.00	\$45.61
4	55.00	\$31.76	\$10.33	\$0.00	\$3.52	\$0.00	\$45.61
5	70.00	\$40.42	\$10.33	\$11.47	\$5.28	\$0.00	\$67.50
6	70.00	\$40.42	\$10.33	\$11.47	\$5.28	\$0.00	\$67.50
7	80.00	\$46.19	\$10.33	\$11.47	\$7.04	\$0.00	\$75.03
8	80.00	\$46.19	\$10.33	\$11.47	\$7.04	\$0.00	\$75.03

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

Effec	tive Date: 3/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	45.00	\$26.66	\$10.33	\$0.00	\$1.76	\$0.00	\$38.75
2	45.00	\$26.66	\$10.33	\$0.00	\$1.76	\$0.00	\$38.75
3	55.00	\$32.58	\$10.33	\$0.00	\$3.52	\$0.00	\$46.43
4	55.00	\$32.58	\$10.33	\$0.00	\$3.52	\$0.00	\$46.43
5	70.00	\$41.47	\$10.33	\$11.47	\$5.28	\$0.00	\$68.55
6	70.00	\$41.47	\$10.33	\$11.47	\$5.28	\$0.00	\$68.55
7	80.00	\$47.39	\$10.33	\$11.47	\$7.04	\$0.00	\$76.23
8	80.00	\$47.39	\$10.33	\$11.47	\$7.04	\$0.00	\$76.23

#### Apprentice Notes

Steps are 750 hrs.

#### Apprentice to Journeyworker Ratio: 1:1

Apprentice: FLOORCOVERER

FORK LIFT/CHERRY PICKER	6/1/2025	\$57.83	\$16.05	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.28	\$16.05	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.58	\$16.05	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.03	\$16.05	\$13.25	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GENERATOR/LIGHTING PLANT/HEATERS	6/1/2025	\$37.02	\$16.05	\$13.25	\$3.25	\$0.00	\$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$37.97	\$16.05	\$13.25	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$38.83	\$16.05	\$13.25	\$3.25	\$0.00	\$71.38
	12/1/2026	\$39.78	\$16.05	\$13.25	\$3.25	\$0.00	\$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	7/1/2025	\$48.01	\$10.30	\$11.95	\$12.50	\$0.00	\$82.76
GLAZIERS LOCAL 35 GLAZIERS LOCAL 35 (ZONE 2)	1/1/2026	\$49.06	\$10.35	\$12.00	\$12.60	\$0.00	\$84.01

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

Effective Date: 7/1/2025

Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.01	\$10.30	\$0.00	\$0.00	\$0.00	\$34.31
2	55.00	\$26.41	\$10.30	\$0.00	\$6.88	\$0.00	\$43.59
3	60.00	\$28.81	\$10.30	\$0.00	\$7.50	\$0.00	\$46.61
4	65.00	\$31.21	\$10.30	\$0.00	\$8.13	\$0.00	\$49.64
5	70.00	\$33.61	\$10.30	\$11.95	\$8.75	\$0.00	\$64.61
6	75.00	\$36.01	\$10.30	\$11.95	\$9.38	\$0.00	\$67.64
7	80.00	\$38.41	\$10.30	\$11.95	\$10.00	\$0.00	\$70.66
8	90.00	\$43.21	\$10.30	\$11.95	\$11.25	\$0.00	\$76.71

Classification Effective Date Base Wage Health Pension Annuity Unemployment Rate

Appro	entice: GLAZIER	(GLASS PLANK/AIR BA	RRIER/INTERI	OR SYSTEMS)			
Effect	tive Date: 1/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.53	\$10.30	\$0.00	\$0.00	\$0.00	\$34.83
2	55.00	\$26.98	\$10.30	\$0.00	\$6.88	\$0.00	\$44.16
3	60.00	\$29.44	\$10.30	\$0.00	\$7.50	\$0.00	\$47.24
4	65.00	\$31.89	\$10.30	\$0.00	\$8.13	\$0.00	\$50.32
5	70.00	\$34.34	\$10.30	\$11.95	\$8.75	\$0.00	\$65.34
6	75.00	\$36.80	\$10.30	\$11.95	\$9.38	\$0.00	\$68.43
7	80.00	\$39.25	\$10.30	\$11.95	\$10.00	\$0.00	\$71.50
8	90.00	\$44.15	\$10.30	\$11.95	\$11.25	\$0.00	\$77.65

Apprentice to Journeyworker Ratio: 1:1

HOISTING ENGINEER/CRANES/GRADALLS	6/1/2025	\$57.83	\$16.05	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.28	\$16.05	\$13.25	\$3.25	\$0.00	\$91.83
or Branch to Brook to Blade Book to	6/1/2026	\$60.58	\$16.05	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.03	\$16.05	\$13.25	\$3.25	\$0.00	\$94.58

Appr	entice: HOISTING	ENGINEER/CRANES/G	RADALLS				
Effect	tive Date: 6/1/2025						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$31.81	\$0.00	\$0.00	\$0.00	\$0.00	\$31.81
2	60.00	\$34.70	\$16.05	\$13.25	\$3.25	\$0.00	\$67.25
3	65.00	\$37.59	\$16.05	\$13.25	\$3.25	\$0.00	\$70.14
4	70.00	\$40.48	\$16.05	\$13.25	\$3.25	\$0.00	\$73.03
5	75.00	\$43.37	\$16.05	\$13.25	\$3.25	\$0.00	\$75.92
6	80.00	\$46.26	\$16.05	\$13.25	\$3.25	\$0.00	\$78.81
7	85.00	\$49.16	\$16.05	\$13.25	\$3.25	\$0.00	\$81.71
8	90.00	\$52.05	\$16.05	\$13.25	\$3.25	\$0.00	\$84.60

Appr	entice: HOISTING	G ENGINEER/CRANES/G	RADALLS				
Effect	tive Date: 12/1/202	5					
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	\$16.05	\$13.25	\$3.25	\$0.00	\$68.42
3	65.00	\$38.86	\$16.05	\$13.25	\$3.25	\$0.00	\$71.41
4	70.00	\$41.85	\$16.05	\$13.25	\$3.25	\$0.00	\$74.40
5	75.00	\$44.84	\$16.05	\$13.25	\$3.25	\$0.00	\$77.39
6	80.00	\$47.82	\$16.05	\$13.25	\$3.25	\$0.00	\$80.37
7	85.00	\$50.81	\$16.05	\$13.25	\$3.25	\$0.00	\$83.36
8	90.00	\$53.80	\$16.05	\$13.25	\$3.25	\$0.00	\$86.35

Classification		Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	Apprentice to Journeywo	orker Ratio: 1:6						
HVAC (DUCTWORK)		8/1/2025	\$60.98	\$14.91	\$18.74	\$9.53	\$2.98	\$107.14
SHEETMETAL WORKERS LOCAL 17 SHEETMETAL WORKERS LOCAL 17 - A	<u>.</u>	2/1/2026	\$62.93	\$14.91	\$18.74	\$9.53	\$2.98	\$109.09
For apprentice rates see "Apprentice- SHEET	Γ METAL WORKER"							
HVAC (ELECTRICAL CONTROLS)		9/1/2025	\$52.25	\$12.25	\$14.86	\$3.75	\$0.00	\$83.11
ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223		9/1/2026	\$54.72	\$12.50	\$15.56	\$4.00	\$0.00	\$86.78
For apprentice rates see "Apprentice- ELECT	ΓRICIAN"							
HVAC (TESTING AND BALANCING - AI	(R)	8/1/2025	\$60.98	\$14.91	\$18.74	\$9.53	\$2.98	\$107.14
SHEETMETAL WORKERS LOCAL 17 - A	<u>.</u>	2/1/2026	\$62.93	\$14.91	\$18.74	\$9.53	\$2.98	\$109.09
For apprentice rates see "Apprentice- SHEET	Γ METAL WORKER"							
HVAC (TESTING AND BALANCING -WAPLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	ATER)	8/25/2025	\$55.24	\$10.80	\$16.80	\$4.60	\$0.00	\$87.44
For apprentice rates see "Apprentice- PIPEFI	TTER" or "PLUMBER/PI	PEFITTER"						
HVAC MECHANIC PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51		8/25/2025	\$55.24	\$10.80	\$16.80	\$4.60	\$0.00	\$87.44
For apprentice rates see "Apprentice- PIPEFI	ITTER" or "PLUMBER/PI	PEFITTER"						
HYDRAULIC DRILLS		6/1/2025	\$40.59	\$10.15	\$9.50	\$9.11	\$0.00	\$69.35
LABORERS - ZONE 2		12/1/2025	\$41.97	\$10.15	\$9.50	\$9.11	\$0.00	\$70.73
		6/1/2026	\$43.41	\$10.15	\$9.50	\$9.11	\$0.00	\$72.17
		12/1/2026	\$44.85	\$10.15	\$9.50	\$9.11	\$0.00	\$73.61
		6/1/2027	\$46.30	\$10.15	\$9.50	\$9.11	\$0.00	\$75.06
		12/1/2027	\$47.75	\$10.15	\$9.50	\$9.11	\$0.00	\$76.51
		6/1/2028	\$49.25	\$10.15	\$9.50	\$9.11	\$0.00	\$78.01
For apprentice rates see "Apprentice- LABO	RER"	12/1/2028	\$50.75	\$10.15	\$9.50	\$9.11	\$0.00	\$79.51
THE PART OF PRINTS OF THE PRIN	WAY)	c/1/0005	¢40.50	¢10.15	Φ0.50	ф0.21	<b>#0.00</b>	Ф.CO. 4.5
HYDRAULIC DRILLS (HEAVY & HIGHV LABORERS	VAI)	6/1/2025	\$40.59	\$10.15	\$9.50	\$9.21	\$0.00	\$69.45
LABORERS - ZONE 2 (HEAVY & HIGHW	VAY)	12/1/2025	\$41.97	\$10.15	\$9.50	\$9.21	\$0.00	\$70.83
		6/1/2026	\$43.41	\$10.15	\$9.50	\$9.21	\$0.00	\$72.27
For apprentice rates see "Apprentice- LABO	RER (Heavy and Highway)	12/1/2026	\$44.85	\$10.15	\$9.50	\$9.21	\$0.00	\$73.71
INSULATOR (PIPES & TANKS)		9/1/2025	\$60.34	\$14.75	\$9.52	\$10.09	\$0.00	\$94.70
HEAT & FROST INSULATORS LOCAL 6 HEAT & FROST INSULATORS LOCAL 6		9/1/2026	\$63.76	\$14.75	\$9.52	\$10.09	\$0.00	\$98.12
[	Apprentice: INSULATO	OR (PIPES & TAN	(KS)					
	Effective Date: 9/1/2025							
	Step Percent	Apprenti Base Wa		ealth	Pension	Annuity	Supplemental Unemployment	Total Rate

LABORER

Classification			Effective Date Ba	se Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	Appr	entice: INSULAT	TOR (PIPES & TANKS)	)					
	Effect	tive Date: 9/1/202	25						
	Step	Percent	Apprentice Base Wage	1	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1	50.00	\$30.17	:	\$14.75	\$9.27	\$5.05	\$0.00	\$59.24
	2	60.00	\$36.20	:	\$14.75	\$9.32	\$6.05	\$0.00	\$66.32
	3	70.00	\$42.24	:	\$14.75	\$9.37	\$7.06	\$0.00	\$73.42
	4	80.00	\$48.27	:	\$14.75	\$9.42	\$8.07	\$0.00	\$80.51
	Appr	entice: INSULAT	TOR (PIPES & TANKS)	)					
	Effect	tive Date: 9/1/202	26						
	Step	Percent	Apprentice Base Wage	1	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1	50.00	\$31.88	:	\$14.75	\$9.27	\$5.05	\$0.00	\$60.95
	2	60.00	\$38.26	:	\$14.75	\$9.32	\$6.05	\$0.00	\$68.38
	3	70.00	\$44.63	;	\$14.75	\$9.37	\$7.06	\$0.00	\$75.81
	4	80.00	\$51.01	:	\$14.75	\$9.42	\$8.07	\$0.00	\$83.25
IRONWORKERS LOCAL 7	ON AREA)		9/16/2025	\$57.87	\$9.05	\$12.75	\$14.50	\$0.00	\$94.1
IRONWORKER/WELDER IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (BOSTO	Appr	entice: IRONWO	DRKER/WELDER 025	\$57.87	\$9.05	\$12.75	\$14.50		\$94.17
IRONWORKERS LOCAL 7	Appr		ORKER/WELDER		\$9.05	\$12.75	\$14.50	\$0.00  Supplemental Unemployment	\$94.17 Total
IRONWORKERS LOCAL 7	Appro	tive Date: 9/16/20	ORKER/WELDER 025 Apprentice					Supplemental	Tota Rate
RONWORKERS LOCAL 7	Appro	Percent  60.00 75.00	Apprentice Base Wage  \$34.72 \$43.40		<b>Health</b> \$9.05 \$9.05	Pension \$12.75 \$12.75	<b>Annuity</b> \$4.50 \$4.50	Supplemental Unemployment \$0.00 \$0.00	Total Rate \$61.02 \$69.70
IRONWORKERS LOCAL 7	Step  1 2 3	Percent  60.00 75.00 85.00	Apprentice Base Wage \$34.72 \$43.40 \$49.19		### ##################################	Pension \$12.75 \$12.75 \$12.75	\$4.50 \$4.50 \$4.50	Supplemental Unemployment \$0.00 \$0.00	Tota Rate \$61.02 \$69.70 \$75.49
IRONWORKERS LOCAL 7	Step  1 2 3 4	Percent  60.00 75.00 85.00 0.00	Apprentice Base Wage  \$34.72 \$43.40 \$49.19 \$0.00		\$9.05 \$9.05 \$9.05 \$9.05 \$0.00	Pension \$12.75 \$12.75 \$12.75 \$0.00	\$4.50 \$4.50 \$4.50 \$4.00	Supplemental Unemployment \$0.00 \$0.00 \$0.00	**Tota Rate** \$61.02 \$69.70 \$75.44 \$0.00
RONWORKERS LOCAL 7	Step  1 2 3 4 5	Percent  60.00 75.00 85.00 0.00 0.00	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00		\$9.05 \$9.05 \$9.05 \$0.00 \$0.00	Pension \$12.75 \$12.75 \$12.75 \$0.00 \$0.00	\$4.50 \$4.50 \$4.50 \$0.00	Supplemental Unemployment \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	**Tota Rate** \$61.02 \$69.70 \$75.49 \$0.00 \$0.00
IRONWORKERS LOCAL 7	Step	Percent  60.00 75.00 85.00 0.00 0.00 0.00	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00		\$9.05 \$9.05 \$9.05 \$9.05 \$0.00	Pension \$12.75 \$12.75 \$12.75 \$0.00	\$4.50 \$4.50 \$4.50 \$4.00	Supplemental Unemployment \$0.00 \$0.00 \$0.00	**Tota Rate** \$61.02 \$69.70 \$75.49 \$0.00 \$0.00
RONWORKERS LOCAL 7	Step	Percent  60.00 75.00 85.00 0.00 0.00 0.00	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00		\$9.05 \$9.05 \$9.05 \$0.00 \$0.00	Pension \$12.75 \$12.75 \$12.75 \$0.00 \$0.00	\$4.50 \$4.50 \$4.50 \$0.00	Supplemental Unemployment \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	**Tota Rat** \$61.0. \$69.70 \$75.4 \$0.00 \$0.00
RONWORKERS LOCAL 7 RONWORKERS LOCAL 7 (BOSTO	Step  1 2 3 4 5 6  Approx	Percent  60.00 75.00 85.00 0.00 0.00 0.00 entice to Journey	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00		\$9.05 \$9.05 \$9.05 \$0.00 \$0.00	Pension \$12.75 \$12.75 \$12.75 \$0.00 \$0.00	\$4.50 \$4.50 \$4.50 \$0.00	Supplemental Unemployment \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$61.0. \$69.70 \$75.4 \$0.00 \$0.00
IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (BOSTO	Step  1 2 3 4 5 6  Approx	Percent  60.00 75.00 85.00 0.00 0.00 0.00 entice to Journey	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00 \$0.00	1	\$9.05 \$9.05 \$9.05 \$0.00 \$0.00	\$12.75 \$12.75 \$12.75 \$0.00 \$0.00	\$4.50 \$4.50 \$4.50 \$0.00 \$0.00	Supplemental Unemployment \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$61.02 \$69.70 \$75.49 \$0.00 \$0.00
IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (BOSTO	Step  1 2 3 4 5 6  Approx	Percent  60.00 75.00 85.00 0.00 0.00 0.00 entice to Journey	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00 \$0.00	\$40.09	\$9.05 \$9.05 \$9.05 \$0.00 \$0.00 \$10.15	Pension \$12.75 \$12.75 \$12.75 \$0.00 \$0.00 \$0.00	\$4.50 \$4.50 \$4.50 \$0.00 \$0.00 \$0.00	Supplemental Unemployment  \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$61.02 \$69.70 \$75.49 \$0.00 \$0.00
IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (BOSTO	Step  1 2 3 4 5 6  Approx	Percent  60.00 75.00 85.00 0.00 0.00 0.00 entice to Journey	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00 \$0.00 \$1.00 \$0.00 \$1.2025 \$12/1/2025 \$12/1/2026	\$40.09 \$41.47	\$9.05 \$9.05 \$9.05 \$0.00 \$0.00 \$10.15 \$10.15	Pension  \$12.75 \$12.75 \$12.75 \$0.00 \$0.00 \$0.00 \$9.50 \$9.50	\$4.50 \$4.50 \$4.50 \$0.00 \$0.00 \$0.00	Supplemental Unemployment \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$61.02 \$69.76 \$75.44 \$0.00 \$0.00 \$68.8 \$70.2 \$71.6
IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (BOSTO	Step  1 2 3 4 5 6  Approx	Percent  60.00 75.00 85.00 0.00 0.00 0.00 entice to Journey	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00 \$0.00 \$0.00 \$1.2025 \$12/1/2025 \$6/1/2026	\$40.09 \$41.47 \$42.91	\$9.05 \$9.05 \$9.05 \$0.00 \$0.00 \$10.15 \$10.15	Pension  \$12.75 \$12.75 \$12.75 \$0.00 \$0.00 \$0.00 \$9.50 \$9.50 \$9.50	\$4.50 \$4.50 \$4.50 \$0.00 \$0.00 \$9.11 \$9.11	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$61.02 \$69.70 \$75.49 \$0.00 \$0.00 \$68.8 \$70.2 \$71.6 \$73.1
IRONWORKERS LOCAL 7	Step  1 2 3 4 5 6  Approx	Percent  60.00 75.00 85.00 0.00 0.00 0.00 entice to Journey	\$34.72 \$34.72 \$43.40 \$49.19 \$0.00 \$0.00 \$0.00 \$0.00 \$0.10 \$0.00 \$0.25 \$12/1/2025 \$6/1/2026 \$12/1/2026 \$6/1/2027 \$12/1/2027	\$40.09 \$41.47 \$42.91 \$44.35	\$9.05 \$9.05 \$9.05 \$0.00 \$0.00 \$10.15 \$10.15 \$10.15	\$12.75 \$12.75 \$12.75 \$0.00 \$0.00 \$0.00 \$9.50 \$9.50 \$9.50	\$4.50 \$4.50 \$4.50 \$0.00 \$0.00 \$0.00 \$9.11 \$9.11 \$9.11	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	Tota Rate \$61.02 \$69.70
IRONWORKERS LOCAL 7 IRONWORKERS LOCAL 7 (BOSTO	Step  1 2 3 4 5 6  Approx	Percent  60.00 75.00 85.00 0.00 0.00 0.00 entice to Journey	\$34.72 \$43.40 \$49.19 \$0.00 \$0.00 \$0.00 \$0.00 \$0.12025 \$12/1/2025 \$6/1/2026 \$12/1/2026 \$6/1/2027	\$40.09 \$41.47 \$42.91 \$44.35 \$45.80	\$9.05 \$9.05 \$9.05 \$0.00 \$0.00 \$10.15 \$10.15 \$10.15 \$10.15	\$12.75 \$12.75 \$12.75 \$0.00 \$0.00 \$0.00 \$9.50 \$9.50 \$9.50 \$9.50 \$9.50	\$4.50 \$4.50 \$4.50 \$0.00 \$0.00 \$0.00 \$9.11 \$9.11 \$9.11 \$9.11	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$61.02 \$69.70 \$75.49 \$0.00 \$0.00 \$70.20 \$71.66 \$73.1 \$74.50

\$39.84

\$10.15

\$9.50

\$9.11

\$0.00 \$68.60

6/1/2025

Construction									
Classification			Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS			12/1/2025	\$41.22	\$10.15	\$9.50	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2			6/1/2026	\$42.66	\$10.15	\$9.50	\$9.11	\$0.00	\$71.42
			12/1/2026	\$44.10	\$10.15	\$9.50	\$9.11	\$0.00	\$72.86
			6/1/2027	\$45.55	\$10.15	\$9.50	\$9.11	\$0.00	\$74.31
			12/1/2027	\$47.00	\$10.15	\$9.50	\$9.11	\$0.00	\$75.76
			6/1/2028	\$48.50	\$10.15	\$9.50	\$9.11	\$0.00	\$77.26
			12/1/2028	\$50.00	\$10.15	\$9.50	\$9.11	\$0.00	\$78.76
	Appro	entice: LABORER						,	
	Effect	ive Date: 6/1/2025							
			Apprentic	ee				Supplemental	Total
	Step	Percent	Base Wag	ge	Health	Pension	Annuity	Unemployment	Rate
	1	60.00	\$23.9	0	\$10.15	\$9.50	\$9.11	\$0.00	\$52.66
	2	70.00	\$27.8	9	\$10.15	\$9.50	\$9.11	\$0.00	\$56.65
	3	80.00	\$31.8	7	\$10.15	\$9.50	\$9.11	\$0.00	\$60.63
	4	90.00	\$35.8	6	\$10.15	\$9.50	\$9.11	\$0.00	\$64.62
ı									
	Appro	entice: LABORER							
	Effect	ive Date: 12/1/2025							
	Step	Percent	Apprentic Base Wag		Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1	60.00	\$25.0	3	\$10.15	\$9.50	\$9.11	\$0.00	\$53.79
	2	70.00	\$29.2	0	\$10.15	\$9.50	\$9.11	\$0.00	\$57.96
	3	80.00	\$33.3	8	\$10.15	\$9.50	\$9.11	\$0.00	\$62.14
	4	90.00	\$37.5	5	\$10.15	\$9.50	\$9.11	\$0.00	\$66.31
	Appre	entice to Journeywor	rker Ratio: 1:5						
LABORER (HEAVY & HIGHWAY)			6/1/2025	\$39.84	\$10.15	\$9.50	\$9.21	\$0.00	\$68.70
LABORERS			12/1/2025	\$41.22	\$10.15	\$9.50	\$9.21	\$0.00	\$70.08
LABORERS - ZONE 2 (HEAVY & HIGHV	(AY)		6/1/2026	\$42.66	\$10.15	\$9.50	\$9.21	\$0.00	\$71.52
			12/1/2026	\$44.10	\$10.15	\$9.50	\$9.21	\$0.00	\$72.96
	Annre	entice: LARORER (	HEAVV & HICH	WAV)					
			HEAVY & HIGH	(WAY)					
		entice: LABORER ( ive Date: 6/1/2025						Supplemental	Total
	Effect		HEAVY & HIGH Apprentic Base Wag	ee	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	Effect Step	Percent	Apprentic Base Wag	re re				Unemployment	Rate
	Step  1	Percent 60.00	Apprentic Base Wag	ee ee 0	\$10.15	\$9.50	\$9.21	Unemployment \$0.00	<b>Rate</b> \$52.76
	Step  1 2	Percent  60.00 70.00	Apprentic Base Wag \$23.9 \$27.8	0 9	\$10.15 \$10.15	\$9.50 \$9.50	\$9.21 \$9.21	\$0.00 \$0.00	\$52.76 \$56.75
	Step  1	Percent 60.00	Apprentic Base Wag	0 9	\$10.15	\$9.50	\$9.21	Unemployment \$0.00	<b>Rate</b> \$52.76

Apprentice: LABORER (HEAVY & HIGHWAY)

Effective Date: 12/1/2025

Apprentice Supplemental Total

Step Percent Base Wage Health Pension Annuity Unemployment Rate

Classification		Effective Date Ba	se Wage	Health	Pension	Annuity	Supplemental Unemployment	Tota Rate
	Apprentice: LABORI	ER (HEAVY & HIGHW	AY)					
	Effective Date: 12/1/2	025						
	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
	Apprentice to Journe	yworker Ratio: 1:5						
LABORER: CARPENTER TENDER		6/1/2025	\$39.84	\$10.15	\$9.50	\$9.11	\$0.00	\$68.60
LABORERS LABORERS - ZONE 2		12/1/2025	\$41.22	\$10.15	\$9.50	\$9.11	\$0.00	\$69.9
LIDONLING - ZONE 2		6/1/2026	\$42.66	\$10.15	\$9.50	\$9.11	\$0.00	\$71.4
		12/1/2026	\$44.10	\$10.15	\$9.50	\$9.11	\$0.00	\$72.8
		6/1/2027	\$45.55	\$10.15	\$9.50	\$9.11	\$0.00	\$74.3
		12/1/2027	\$47.00		\$9.50	\$9.11	\$0.00	\$75.7
		6/1/2028	\$48.50		\$9.50	\$9.11	\$0.00	\$77.2
For apprentice rates see "Apprentice- LA	BORER"	12/1/2028	\$50.00	\$10.15	\$9.50	\$9.11	\$0.00	\$78.7
		C/1 /0005	#20.04	φ10.15	ф0.70	do 11	<b>#0.00</b>	<b>#</b> 60.6
ABORER: CEMENT FINISHER TENI ABORERS	DEK	6/1/2025	\$39.84		\$9.50	\$9.11	\$0.00	\$68.6
LABORERS - ZONE 2		12/1/2025	\$41.22		\$9.50	\$9.11	\$0.00	\$69.9
		6/1/2026 12/1/2026	\$42.66 \$44.10		\$9.50 \$9.50	\$9.11 \$9.11	\$0.00 \$0.00	\$71.4 \$72.8
		6/1/2027	\$45.55		\$9.50	\$9.11	\$0.00	\$74.3
		12/1/2027	\$47.00		\$9.50	\$9.11	\$0.00	\$75.7
		6/1/2028	\$48.50		\$9.50	\$9.11	\$0.00	\$77.2
		12/1/2028	\$50.00		\$9.50	\$9.11	\$0.00	\$78.7
For apprentice rates see "Apprentice- LAI	BORER"							
LABORER: HAZARDOUS WASTE/AS	BESTOS REMOVER	6/2/2025	\$39.93	\$10.15	\$9.50	\$9.65	\$0.00	\$69.2
ABORERS ABORERS - ZONE 2		12/1/2025	\$41.31	\$10.15	\$9.50	\$9.65	\$0.00	\$70.6
		6/1/2026	\$42.75	\$10.15	\$9.50	\$9.65	\$0.00	\$72.0
		12/7/2026	\$44.19		\$9.50	\$9.65	\$0.00	\$73.4
		6/7/2027	\$45.64		\$9.50	\$9.65	\$0.00	\$74.9
		12/6/2027	\$47.09		\$9.50	\$9.65	\$0.00	\$76.3
		6/5/2028	\$48.59		\$9.50	\$9.65	\$0.00	\$77.8
For apprentice rates see "Apprentice- LA	BORER"	12/4/2028	\$50.09	\$10.15	\$9.50	\$9.65	\$0.00	\$79.3
ABORER: MASON TENDER		6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.8
ABORERS		12/1/2025	\$41.47		\$9.50	\$9.11	\$0.00	\$70.2
LABORERS - ZONE 2		6/1/2026	\$42.91		\$9.50	\$9.11	\$0.00	\$71.6
		12/1/2026	\$44.35		\$9.50	\$9.11	\$0.00	\$73.1
		6/1/2027	\$45.80		\$9.50	\$9.11	\$0.00	\$74.5
		12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.0
		6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.5
		12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.0

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
LABORER: MASON TENDER (HEAVY & HIGHWAY)	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.21	\$0.00	\$68.95
LABORERS LABORERS ZONE 2 (HEAVY & HICHWAY)	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.21	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway	)						
LABORER: MULTI-TRADE TENDER	6/1/2025	\$39.84	\$10.15	\$9.50	\$9.11	\$0.00	\$68.60
LABORERS ZONE 2	12/1/2025	\$41.22	\$10.15	\$9.50	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2	6/1/2026	\$42.66	\$10.15	\$9.50	\$9.11	\$0.00	\$71.42
	12/1/2026	\$44.10	\$10.15	\$9.50	\$9.11	\$0.00	\$72.86
	6/1/2027	\$45.55	\$10.15	\$9.50	\$9.11	\$0.00	\$74.31
	12/1/2027	\$47.00	\$10.15	\$9.50	\$9.11	\$0.00	\$75.76
	6/1/2028	\$48.50	\$10.15	\$9.50	\$9.11	\$0.00	\$77.26
	12/1/2028	\$50.00	\$10.15	\$9.50	\$9.11	\$0.00	\$78.76
For apprentice rates see "Apprentice- LABORER"							
LABORER: TREE REMOVER	6/1/2025	\$39.84	\$10.15	\$9.50	\$9.11	\$0.00	\$68.60
LABORERS	12/1/2025	\$41.22	\$10.15	\$9.50	\$9.11	\$0.00	\$69.98
LABORERS - ZONE 2	6/1/2026	\$42.66	\$10.15	\$9.50	\$9.11	\$0.00	\$71.42
	12/1/2026	\$44.10	\$10.15	\$9.50	\$9.11	\$0.00	\$72.86
	6/1/2027	\$45.55	\$10.15	\$9.50	\$9.11	\$0.00	\$74.31
	12/1/2027	\$47.00	\$10.15	\$9.50	\$9.11	\$0.00	\$75.76
	6/1/2028	\$48.50	\$10.15	\$9.50	\$9.11	\$0.00	\$77.26
	12/1/2028	\$50.00	\$10.15	\$9.50	\$9.11	\$0.00	\$78.76
This classification applies to the removal of standing trees, and the trim incidental to construction . For apprentice rates see "Apprentice- LABC	-	of branches and l	imbs when rela	ated to public v	vorks constru	ction or site clearanc	ce
LASER BEAM OPERATOR	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS - ZONE 2	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51
For apprentice rates see "Apprentice- LABORER"	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01
LASER BEAM OPERATOR (HEAVY & HIGHWAY) LABORERS	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.21	\$0.00	\$68.95
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.21	\$0.00	\$70.33
,	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.21	\$0.00	\$71.77
For apprentice rates see "Apprentice- LABORER (Heavy and Highway	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.21	\$0.00	\$73.21
MARBLE & TILE FINISHERS BRICKLAYERS LOCAL 3	8/1/2025	\$52.08	\$11.49	\$15.57	\$6.05	\$0.00	\$85.19
BRICKLAYERS LOCAL 3 - MARBLE & TILE	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

Classification Effective Date Base Wage Health Pension Annuity Unemployment Rate

Appro	entice: MARBLE	& TILE FINISHERS					
Effect	tive 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

Appre	entice: MARBLE	& TILE FINISHERS					
Effect	ive Date: 2/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$26.58	\$11.49	\$15.57	\$6.05	\$0.00	\$59.69
2	60.00	\$31.90	\$11.49	\$15.57	\$6.05	\$0.00	\$65.01
3	70.00	\$37.21	\$11.49	\$15.57	\$6.05	\$0.00	\$70.32
4	80.00	\$42.53	\$11.49	\$15.57	\$6.05	\$0.00	\$75.64
5	90.00	\$47.84	\$11.49	\$15.57	\$6.05	\$0.00	\$80.95

Apprentice to Journeyworker Ratio: 1:5

MARBLE MASONS, TILELAYERS & TERRAZZO MECH	8/1/2025	\$67.97	\$11.49	\$15.57	\$7.99	\$0.00	\$103.02
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	\$69.32	\$11.49	\$15.57	\$7.99	\$0.00	\$104.37
BRICKLATERS LOCAL 3 - MARDLE & TILL	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

Appro	entice: MARBLE	MASONS, TILELAYERS	& TERRAZZO N	ИЕСH			
Effect	tive 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

Appro	entice: MARBLE	MASONS,TILELAYERS	& TERRAZZO N	ИЕСH			
Effect	tive Date: 2/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$34.66	\$11.49	\$15.57	\$7.99	\$0.00	\$69.71
2	60.00	\$41.59	\$11.49	\$15.57	\$7.99	\$0.00	\$76.64
3	70.00	\$48.52	\$11.49	\$15.57	\$7.99	\$0.00	\$83.57

MILLWRIGHTS LOCAL 1121 - Zone 2

Classification			Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	''		MASONS,TILELAY	YERS & TE	ERRAZZO ME	СН			
	Effec	tive Date: 2/1/2020	6						
	Step	Percent	Apprentic Base Wag		Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	4	80.00	\$55.4	6	\$11.49	\$15.57	\$7.99	\$0.00	\$90.51
	5	90.00	\$62.3	9	\$11.49	\$15.57	\$7.99	\$0.00	\$97.44
	Appr	entice to Journeyv	vorker Ratio: 1:5						
MECH. SWEEPER OPERATOR (ON CO	NST. SI	ΓES)	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
MECH. SWEEPER OPERATOR (ON CONST. SI DPERATING ENGINEERS LOCAL 4 DPERATING ENGINEERS LOCAL 4			12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4			6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45
			12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPE	ERATING	ENGINEERS"							
MECHANICS MAINTENANCE			6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4			12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4			6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45
			12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPE	RATING	ENGINEERS"							
MILLWRIGHT (Zone 2)			1/6/2025	\$45.03	\$10.08	\$11.47	\$10.00	\$0.00	\$76.58
MILLWRIGHTS LOCAL 1121			1/5/2026	\$47.36	\$10.08	\$11.47	\$10.00	\$0.00	\$78.91

1/5/2026

\$47.36

Appr	entice: MILLWRI	GHT (Zone 2)					
Effect	tive Date: 1/6/2025	i					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$24.77	\$10.08	\$0.00	\$5.50	\$0.00	\$40.35
2	65.00	\$29.27	\$10.08	\$0.00	\$6.50	\$0.00	\$45.85
3	75.00	\$33.77	\$10.08	\$11.47	\$7.50	\$0.00	\$62.82
4	85.00	\$38.28	\$10.08	\$11.47	\$8.50	\$0.00	\$68.33

\$10.08

\$11.47

\$10.00

\$0.00

\$78.91

Appro	entice: MILL	WRIGHT (Zone 2)					
Effect	tive Date: 1/5	/2026					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	55.00	\$26.05	\$10.08	\$0.00	\$5.50	\$0.00	\$41.63
2	65.00	\$30.78	\$10.08	\$0.00	\$6.50	\$0.00	\$47.36
3	75.00	\$35.52	\$10.08	\$11.47	\$7.50	\$0.00	\$64.57
4	85.00	\$40.26	\$10.08	\$11.47	\$8.50	\$0.00	\$70.31

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

Apprentice to Journeyworker Ratio: 1:4

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
MORTAR MIXER	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS LABORERS - ZONE 2	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	6/1/2025	\$25.02	\$16.05	\$13.25	\$3.25	\$0.00	\$57.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$25.68	\$16.05	\$13.25	\$3.25	\$0.00	\$58.23
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$26.27	\$16.05	\$13.25	\$3.25	\$0.00	\$58.82
	12/1/2026	\$26.94	\$16.05	\$13.25	\$3.25	\$0.00	\$59.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OILER (TRUCK CRANES, GRADALLS)	6/1/2025	\$30.85	\$16.05	\$13.25	\$3.25	\$0.00	\$63.40
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$31.65	\$16.05	\$13.25	\$3.25	\$0.00	\$64.20
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$32.37	\$16.05	\$13.25	\$3.25	\$0.00	\$64.92
	12/1/2026	\$33.17	\$16.05	\$13.25	\$3.25	\$0.00	\$65.72
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
OTHER POWER DRIVEN EQUIPMENT - CLASS II	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PAINTER (BRIDGES/TANKS)	7/1/2025	\$58.51	\$10.30	\$11.95	\$12.50	\$0.00	\$93.26
PAINTERS LOCAL 35 PAINTERS LOCAL 35 - ZONE 2	1/1/2026	\$59.56	\$10.35	\$12.00	\$12.50	\$0.00	\$94.41

Appro	entice: PAINTER	(BRIDGES/TANKS)					
Effect	ive Date: 7/1/2025						
		Apprentice				Supplemental	Total
Step	Percent	Base Wage	Health	Pension	Annuity	Unemployment	Rate
1	50.00	\$29.26	\$10.30	\$0.00	\$0.00	\$0.00	\$39.56
2	55.00	\$32.18	\$10.30	\$0.00	\$6.88	\$0.00	\$49.36
3	60.00	\$35.11	\$10.30	\$0.00	\$7.50	\$0.00	\$52.91
4	65.00	\$38.03	\$10.30	\$0.00	\$8.13	\$0.00	\$56.46
5	70.00	\$40.96	\$10.30	\$11.95	\$8.75	\$0.00	\$71.96
6	75.00	\$43.88	\$10.30	\$11.95	\$9.38	\$0.00	\$75.51
7	80.00	\$46.81	\$10.30	\$11.95	\$10.00	\$0.00	\$79.06
8	90.00	\$52.66	\$10.30	\$11.95	\$11.25	\$0.00	\$86.16

Classification Effective Date Base Wage Health Pension Annuity Unemployment Rate

Appr	entice: PAINTER	(BRIDGES/TANKS)					
Effect	tive Date: 1/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$29.78	\$10.35	\$0.00	\$0.00	\$0.00	\$40.13
2	55.00	\$32.76	\$10.35	\$0.00	\$6.93	\$0.00	\$50.04
3	60.00	\$35.74	\$10.35	\$0.00	\$7.56	\$0.00	\$53.65
4	65.00	\$38.71	\$10.35	\$0.00	\$8.19	\$0.00	\$57.25
5	70.00	\$41.69	\$10.35	\$12.00	\$8.82	\$0.00	\$72.86
6	75.00	\$44.67	\$10.35	\$12.00	\$9.45	\$0.00	\$76.47
7	80.00	\$47.65	\$10.35	\$12.00	\$10.08	\$0.00	\$80.08
8	90.00	\$53.60	\$10.35	\$12.00	\$11.34	\$0.00	\$87.29

Apprentice to Journeyworker Ratio: 1:1

PAINTER (SPRAY OR SANDBLAST, NEW) \* 7/1/2025 \$49.41 \$10.30 \$11.95 \$12.50 \$0.00 \$84.16 \* If 30% or more of surfaces to be painted are new construction, 1/1/2026 \$12.00 \$50.46 \$10.35 \$12.60 \$0.00 \$85.41

NEW paint rate shall be used. PAINTERS LOCAL 35

PAINTERS LOCAL 35 - ZONE 2

Appro	entice: PAINTER	(SPRAY OR SANDBLAS	Γ, NEW) *				
Effect	tive Date: 7/1/2025						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.71	\$10.30	\$0.00	\$0.00	\$0.00	\$35.01
2	55.00	\$27.18	\$10.30	\$0.00	\$6.88	\$0.00	\$44.36
3	60.00	\$29.65	\$10.30	\$0.00	\$7.50	\$0.00	\$47.45
4	65.00	\$32.12	\$10.30	\$0.00	\$8.13	\$0.00	\$50.55
5	70.00	\$34.59	\$10.30	\$11.95	\$8.75	\$0.00	\$65.59
6	75.00	\$37.06	\$10.30	\$11.95	\$9.38	\$0.00	\$68.69
7	80.00	\$39.53	\$10.30	\$11.95	\$10.00	\$0.00	\$71.78
8	90.00	\$44.47	\$10.30	\$11.95	\$11.25	\$0.00	\$77.97

Apprentice: PAINTER (SPRAY OR SANDBLAST, NEW) *  Effective Date: 1/1/2026							
1	50.00	\$25.23	\$10.35	\$0.00	\$0.00	\$0.00	\$35.58
2	55.00	\$27.75	\$10.35	\$0.00	\$6.93	\$0.00	\$45.03
3	60.00	\$30.28	\$10.35	\$0.00	\$7.56	\$0.00	\$48.19
4	65.00	\$32.80	\$10.35	\$0.00	\$8.19	\$0.00	\$51.34
5	70.00	\$35.32	\$10.35	\$12.00	\$8.82	\$0.00	\$66.49
6	75.00	\$37.85	\$10.35	\$12.00	\$9.45	\$0.00	\$69.65
7	80.00	\$40.37	\$10.35	\$12.00	\$10.08	\$0.00	\$72.80
8	90.00	\$45.41	\$10.35	\$12.00	\$11.34	\$0.00	\$79.10

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
Apprentice to Journey	vorker Ratio: 1:1						
PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35	7/1/2025 1/1/2026	\$47.47 \$48.52	\$10.30 \$10.35	\$11.95 \$12.00	\$12.50 \$12.60	\$0.00 \$0.00	\$82.22 \$83.47
PAINTERS LOCAL 35 - ZONE 2	1/1/2020	φ +0.52	Ψ10.33	Ψ12.00	Ψ12.00	φ0.00	φοσ. τ

		(SPRAY OR SANDBLAS	T, REPAINT)				
Effect	tive Date: 7/1/2025						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$23.74	\$10.30	\$0.00	\$0.00	\$0.00	\$34.04
2	55.00	\$26.11	\$10.30	\$0.00	\$6.88	\$0.00	\$43.29
3	60.00	\$28.48	\$10.30	\$0.00	\$7.50	\$0.00	\$46.28
4	65.00	\$30.86	\$10.30	\$0.00	\$8.13	\$0.00	\$49.29
5	70.00	\$33.23	\$10.30	\$11.95	\$8.75	\$0.00	\$64.23
6	75.00	\$35.60	\$10.30	\$11.95	\$9.38	\$0.00	\$67.23
7	80.00	\$37.98	\$10.30	\$11.95	\$10.00	\$0.00	\$70.23
8	90.00	\$42.72	\$10.30	\$11.95	\$11.25	\$0.00	\$76.22

Appr	apprentice: PAINTER (SPRAY OR SANDBLAST, REPAINT)											
Effect	tive Date: 1/1/2026											
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate					
1	50.00	\$24.26	\$10.35	\$0.00	\$0.00	\$0.00	\$34.61					
2	55.00	\$26.69	\$10.35	\$0.00	\$6.93	\$0.00	\$43.97					
3	60.00	\$29.11	\$10.35	\$0.00	\$7.56	\$0.00	\$47.02					
4	65.00	\$31.54	\$10.35	\$0.00	\$8.19	\$0.00	\$50.08					
5	70.00	\$33.96	\$10.35	\$12.00	\$8.82	\$0.00	\$65.13					
6	75.00	\$36.39	\$10.35	\$12.00	\$9.45	\$0.00	\$68.19					
7	80.00	\$38.82	\$10.35	\$12.00	\$10.08	\$0.00	\$71.25					
8	90.00	\$43.67	\$10.35	\$12.00	\$11.34	\$0.00	\$77.36					

Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, NEW) *	7/1/2025	\$48.01	\$10.30	\$11.95	\$12.50	\$0.00	\$82.76
* If 30% or more of surfaces to be painted are new construction,	1/1/2026	\$49.06	\$10.35	\$12.00	\$12.60	\$0.00	\$84.01
NEW paint rate shall be used.	1/1/2020	φ+7.00	Ψ10.55	Ψ12.00	Ψ12.00	φ0.00	ψ04.01

PAINTERS LOCAL 35

PAINTERS LOCAL 35 - ZONE 2

Appro	entice: PAINTER	/ TAPER (BRUSH, NEW)	*				
Effect	tive Date: 7/1/2025						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.01	\$10.30	\$0.00	\$0.00	\$0.00	\$34.31
2	55.00	\$26.41	\$10.30	\$0.00	\$6.88	\$0.00	\$43.59
3	60.00	\$28.81	\$10.30	\$0.00	\$7.50	\$0.00	\$46.61

Classification Effective Date Base Wage Health Pension Annuity Unemployment Rate

Appr	Apprentice: PAINTER / TAPER (BRUSH, NEW) *											
Effect	tive Date: 7/1/202	5										
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate					
4	65.00	\$31.21	\$10.30	\$0.00	\$8.13	\$0.00	\$49.64					
5	70.00	\$33.61	\$10.30	\$11.95	\$8.75	\$0.00	\$64.61					
6	75.00	\$36.01	\$10.30	\$11.95	\$9.38	\$0.00	\$67.64					
7	80.00	\$38.41	\$10.30	\$11.95	\$10.00	\$0.00	\$70.66					
8	90.00	\$43.21	\$10.30	\$11.95	\$11.25	\$0.00	\$76.71					

Appr	entice: PAINTER	TAPER (BRUSH, NEW)	*				
Effect	tive Date: 1/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$24.53	\$10.35	\$0.00	\$0.00	\$0.00	\$34.88
2	55.00	\$26.98	\$10.35	\$0.00	\$6.93	\$0.00	\$44.26
3	60.00	\$29.44	\$10.35	\$0.00	\$7.56	\$0.00	\$47.35
4	65.00	\$31.89	\$10.35	\$0.00	\$8.19	\$0.00	\$50.43
5	70.00	\$34.34	\$10.35	\$12.00	\$8.82	\$0.00	\$65.51
6	75.00	\$36.80	\$10.35	\$12.00	\$9.45	\$0.00	\$68.60
7	80.00	\$39.25	\$10.35	\$12.00	\$10.08	\$0.00	\$71.68
8	90.00	\$44.15	\$10.35	\$12.00	\$11.34	\$0.00	\$77.84

#### Apprentice to Journeyworker Ratio: 1:1

PAINTER / TAPER (BRUSH, REPAINT) 7/1/2025 \$46.07 \$10.30 \$11.95 \$12.50 \$0.00 \$80.82 PAINTERS LOCAL 35 1/1/2026 \$47.12 \$10.35 \$12.00 \$0.00 \$82.07 \$12.60 PAINTERS LOCAL 35 - ZONE 2

Appr	pprentice: PAINTER / TAPER (BRUSH, REPAINT)											
Effect	tive Date: 7/1/2025											
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate					
1	50.00	\$23.04	\$10.30	\$0.00	\$0.00	\$0.00	\$33.34					
2	55.00	\$25.34	\$10.30	\$0.00	\$6.88	\$0.00	\$42.52					
3	60.00	\$27.64	\$10.30	\$0.00	\$7.50	\$0.00	\$45.44					
4	65.00	\$29.95	\$10.30	\$0.00	\$8.13	\$0.00	\$48.38					
5	70.00	\$32.25	\$10.30	\$11.95	\$8.75	\$0.00	\$63.25					
6	75.00	\$34.55	\$10.30	\$11.95	\$9.38	\$0.00	\$66.18					
7	80.00	\$36.86	\$10.30	\$11.95	\$10.00	\$0.00	\$69.11					
8	90.00	\$41.46	\$10.30	\$11.95	\$11.25	\$0.00	\$74.96					

Appr	entice: PAINTER	/ TAPER (BRUSH, REPA	INT)				
Effec	tive Date: 1/1/2020	6					
		Apprentice				Supplemental	Total
Step	Percent	Base Wage	Health	Pension	Annuity	Unemployment	Rate
l —							

Classification			Effective Date Ba	ase Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	Appr	entice: PAINTER /	TAPER (BRUSH, R	EPAINT)					
	Effect	tive Date: 1/1/2026							
	Step	Percent	Apprentice Base Wage		Health	Pension	Annuity	Supplemental Unemployment	Total Rate
	1	50.00	\$23.56		\$10.35	\$0.00	\$0.00	\$0.00	\$33.91
	2	55.00	\$25.92		\$10.35	\$0.00	\$6.93	\$0.00	\$43.20
	3	60.00	\$28.27		\$10.35	\$0.00	\$7.56	\$0.00	\$46.18
	4	65.00	\$30.63		\$10.35	\$0.00	\$8.19	\$0.00	\$49.17
	5	70.00	\$32.98		\$10.35	\$12.00	\$8.82	\$0.00	\$64.15
	6	75.00	\$35.34		\$10.35	\$12.00	\$9.45	\$0.00	\$67.14
	7	80.00	\$37.70		\$10.35	\$12.00	\$10.08	\$0.00	\$70.13
	8	90.00	\$42.41		\$10.35	\$12.00	\$11.34	\$0.00	\$76.10
	Appro	entice to Journeyw	orker Ratio: 1:1						
PAINTER TRAFFIC MARKINGS (HEAV	/Y/HIGH	IWAY)	6/1/2025	\$39.84	\$10.15	\$9.50	\$9.21	\$0.00	\$68.70
LABORERS - ZONE 2 (HEAVY & HIGH	(WAY)		12/1/2025	\$41.22	\$10.15	\$9.50	\$9.21	\$0.00	\$70.08
LABORERS - ZOIVE 2 (HEAV I & HIGH	(WAI)		6/1/2026	\$42.66	\$10.15	\$9.50	\$9.21	\$0.00	\$71.52
			12/1/2026	\$44.10	\$10.15	\$9.50	\$9.21	\$0.00	\$72.96
For apprentice rates see "Apprentice- LAB	ORER (I	Heavy and Highway	)						
PANEL & PICKUP TRUCKS DRIVER			6/1/2025	\$40.78	\$15.57	\$20.17	\$0.00	\$0.00	\$76.52
TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 2	ZONE D		12/1/2025	\$40.78	\$15.57	\$21.78	\$0.00	\$0.00	\$78.13
TEAMSTERS JOINT COUNCIL NO. 102	LONE B		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 (UN DECK) PILE DRIVER LOCAL 56 PILE DRIVER LOCAL 56 (ZONE 1)	DERPIN	INING AND	8/1/2024	\$55.79	\$10.08	\$11.62	\$12.67	\$0.00	\$90.16
For apprentice rates see "Apprentice- PILE	DRIVE	R"							
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
	Appr	entice: PH F DRIV	TED						

Appro	entice: PILE DRIV	VER					
Effect	tive Date: 8/1/2024	Į.					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
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	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85

Issue Date: 11/26/2025

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
PIPELAYER (HEAVY & HIGHWAY)	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.35	\$10.15	\$9.50	\$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	8/25/2025	\$55.24	\$10.80	\$16.80	\$4.60	\$0.00	\$87.44

Appro	entice: PLUMBEI	R & PIPEFITTER					
Effect	tive Date: 8/25/202	25					
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.)	8/25/2025	\$55.24	\$10.80	\$16.80	\$4.60	\$0.00	\$87.44
PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51							
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPE	EFITTER"						
PNEUMATIC DRILL/TOOL OPERATOR	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.21	\$0.00	\$68.95
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAVY & HIGHWAY)	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.21	\$0.00	\$73.21

Issue Date: 11/26/2025

Classification For apprentice rates see "Apprentice- LABORER (Heavy and Highway	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
POWDERMAN & BLASTER	6/1/2025	\$40.84	\$10.15	\$9.50	\$9.11	\$0.00	\$69.60
LABORERS	12/1/2025	\$42.22	\$10.15	\$9.50	\$9.11	\$0.00	\$70.98
LABORERS - ZONE 2	6/1/2026	\$43.66	\$10.15	\$9.50	\$9.11	\$0.00	\$72.42
	12/1/2026	\$45.10	\$10.15	\$9.50	\$9.11	\$0.00	\$73.86
	6/1/2027	\$46.55	\$10.15	\$9.50	\$9.11	\$0.00	\$75.31
	12/1/2027	\$48.00	\$10.15	\$9.50	\$9.11	\$0.00	\$76.76
	6/1/2028	\$49.50	\$10.15	\$9.50	\$9.11	\$0.00	\$78.26
	12/1/2028	\$51.00	\$10.15	\$9.50	\$9.11	\$0.00	\$79.76
For apprentice rates see "Apprentice- LABORER"							
POWDERMAN & BLASTER (HEAVY & HIGHWAY)	6/1/2025	\$40.84	\$9.90	\$9.50	\$9.21	\$0.00	\$69.45
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	\$42.22	\$9.90	\$9.50	\$9.21	\$0.00	\$70.83
LABORERS - ZONE 2 (HEAV I & HIGHWAT)	6/1/2026	\$43.66	\$9.90	\$9.50	\$9.21	\$0.00	\$72.27
	12/1/2026	\$45.10	\$9.90	\$9.50	\$9.21	\$0.00	\$73.71
For apprentice rates see "Apprentice- LABORER (Heavy and Highway	7)						
POWER SHOVEL/DERRICK/TRENCHING MACHINE	6/1/2025	\$57.83	\$16.05	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.28	\$16.05	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.58	\$16.05	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.03	\$16.05	\$13.25	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
PUMP OPERATOR (CONCRETE)	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"		,	,	,		,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
PUMP OPERATOR (DEWATERING, OTHER)	6/1/2025	\$37.02	\$16.05	\$13.25	\$3.25	\$0.00	\$69.57
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$37.97	\$16.05	\$13.25	\$3.25	\$0.00	\$70.52
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$38.83	\$16.05	\$13.25 \$13.25	\$3.25	\$0.00	\$71.38
	12/1/2026	\$39.78	\$16.05	\$13.25	\$3.25	\$0.00	\$72.33
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12, 1, 2020	ψ37.70	Ψ10.03	Ψ13.23	φ3.23	ψ0.00	Ψ72.33
READY-MIX CONCRETE DRIVER	8/1/2023	\$25.00	\$13.91	\$6.90	\$0.00	\$0.00	\$45.81
TEAMSTERS 653 TEAMSTERS 653 - Southeastern Concrete (Weymouth)	0/1/2023	φ25.00	φ13.51	ψ0.50	ψ0.00	φ0.00	ψ+3.01
RECLAIMERS	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.90	\$16.05	\$13.25 \$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12, 1/2020	φ02.01	710.00	¥10.20	40.20	ψ0.00	<i>4,5.0)</i>
RIDE-ON MOTORIZED BUGGY OPERATOR	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23
LABORERS - ZONE 2	6/1/2026	\$41.47 \$42.91	\$10.15	\$9.50 \$9.50	\$9.11	\$0.00	\$70.23
	12/1/2026	\$42.91 \$44.35	\$10.15	\$9.50 \$9.50	\$9.11	\$0.00	\$73.11
	12/1/2020	φ <del>++</del> .33	φ10.13	φ <b>ラ.</b> .ΟU	φ <b>7.11</b>	\$U.UU	φ/3.11

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate	
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01	
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51	
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01	
For apprentice rates see "Apprentice- LABORER"								
ROLLER/SPREADER/MULCHING MACHINE	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73	
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17	
OFERATING ENGINEERS LOCAL 4	6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45	
	12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89	
For apprentice rates see "Apprentice- OPERATING ENGINEERS"								
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)	8/1/2025	\$53.53	\$13.28	\$12.67	\$9.03	\$0.00	\$88.51	
ROOFERS LOCAL 33 ROOFERS LOCAL 33	2/1/2026	\$54.78	\$13.28	\$12.67	\$9.03	\$0.00	\$89.76	

Appro	Apprentice: ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)											
Effect	tive 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					

	entice: ROOFER ( ive Date: 2/1/2026	Inc.Roofer Waterproofng	&Roofer Dampro	oofg)			
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$27.39	\$13.28	\$6.52	\$9.03	\$0.00	\$56.22
2	60.00	\$32.87	\$13.28	\$12.67	\$9.03	\$0.00	\$67.85
3	65.00	\$35.61	\$13.28	\$12.67	\$9.03	\$0.00	\$70.59
4	75.00	\$41.09	\$13.28	\$12.67	\$9.03	\$0.00	\$76.07
5	85.00	\$46.56	\$13.28	\$12.67	\$9.03	\$0.00	\$81.54

Apprentice Notes		_	_	_	_	_	_	_	_	_		_	$\neg$
** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1	_	_	_	_	_	_	_	_	_	_	_	_	$-^{I}$

# Apprentice to Journeyworker Ratio: 1:5

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

Issue Date: 11/26/2025 Wage Request Number: 20251125200133 Page 29 of 36

Classification Effective Date Base Wage Health Pension Annuity Unemployment Rate

••	entice: SHEETME						
Step	tive Date: 8/1/2025 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

Appro	entice: SHEETME	ΓAL WORKER					
Effect	tive Date: 2/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	42.00	\$26.43	\$14.91	\$6.19	\$0.00	\$0.00	\$47.53
2	42.00	\$26.43	\$14.91	\$6.19	\$0.00	\$0.00	\$47.53
3	47.00	\$29.58	\$14.91	\$10.93	\$1.25	\$1.62	\$58.29
4	47.00	\$29.58	\$14.91	\$10.93	\$1.25	\$1.62	\$58.29
5	52.00	\$32.72	\$14.91	\$11.66	\$1.50	\$1.74	\$62.53
6	52.00	\$32.72	\$14.91	\$11.66	\$1.75	\$1.75	\$62.79
7	60.00	\$37.76	\$14.91	\$12.84	\$2.00	\$1.93	\$69.44
8	65.00	\$40.90	\$14.91	\$13.58	\$2.25	\$2.04	\$73.68
9	75.00	\$47.20	\$14.91	\$15.06	\$2.75	\$2.28	\$82.20
10	85.00	\$53.49	\$14.91	\$16.53	\$2.75	\$2.49	\$90.17

SPECIALIZED EARTH MOVING EQUIP < 35 TONS	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
-							
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	6/1/2025	\$41.53	\$15.57	\$20.17	\$0.00	\$0.00	\$77.27
TEAMSTERS JOINT COUNCIL NO. 10 TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/1/2025	\$41.53	\$15.57	\$21.78	\$0.00	\$0.00	\$78.88
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	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	10/1/2025	\$72.05	\$12.25	\$7.40	\$19.50	\$0.00	\$111.20

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Unemployment	Rate
SPRINKLER FITTERS LOCAL 550	1/1/2026	\$72.05	\$13.45	\$7.45	\$18.25	\$0.00	\$111.20
SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1							

Appro	entice: SPRINKLI	ER FITTER					
Effect	ive Date: 10/1/202	5					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	35.00	\$25.22	\$12.25	\$14.22	\$0.00	\$0.00	\$51.69
2	40.00	\$28.82	\$12.25	\$15.20	\$0.00	\$0.00	\$56.27
3	45.00	\$32.42	\$12.25	\$16.18	\$0.00	\$0.00	\$60.85
4	50.00	\$36.03	\$12.25	\$17.15	\$0.00	\$0.00	\$65.43
5	55.00	\$39.63	\$12.25	\$18.12	\$0.00	\$0.00	\$70.00
6	60.00	\$43.23	\$12.25	\$19.10	\$0.00	\$0.00	\$74.58
7	65.00	\$46.83	\$12.25	\$20.08	\$0.00	\$0.00	\$79.16
8	70.00	\$50.44	\$12.25	\$21.04	\$0.00	\$0.00	\$83.73
9	75.00	\$54.04	\$12.25	\$22.02	\$0.00	\$0.00	\$88.31
10	80.00	\$57.64	\$12.25	\$23.00	\$0.00	\$0.00	\$92.89

Appro	entice: SPRINKLE	R FITTER					
Effect	tive Date: 1/1/2026						
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	35.00	\$25.22	\$13.45	\$13.84	\$0.00	\$0.00	\$52.51
2	40.00	\$28.82	\$13.45	\$14.75	\$0.00	\$0.00	\$57.02
3	45.00	\$32.42	\$13.45	\$15.67	\$0.00	\$0.00	\$61.54
4	50.00	\$36.03	\$13.45	\$16.57	\$0.00	\$0.00	\$66.05
5	55.00	\$39.63	\$13.45	\$17.49	\$0.00	\$0.00	\$70.57
6	60.00	\$43.23	\$13.45	\$18.40	\$0.00	\$0.00	\$75.08
7	65.00	\$46.83	\$13.45	\$19.32	\$0.00	\$0.00	\$79.60
8	70.00	\$50.44	\$13.45	\$20.22	\$0.00	\$0.00	\$84.11
9	75.00	\$54.04	\$13.45	\$21.15	\$0.00	\$0.00	\$88.64
10	80.00	\$57.64	\$13.45	\$22.05	\$0.00	\$0.00	\$93.14

Apprentice Notes	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Apprentice entered prior 9/30/10:	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	

STEAM BOILER OPERATOR	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	6/1/2025	\$57.18	\$16.05	\$13.25	\$3.25	\$0.00	\$89.73
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	\$58.62	\$16.05	\$13.25	\$3.25	\$0.00	\$91.17
OFERATING ENGINEERS LOCAL 4	6/1/2026	\$59.90	\$16.05	\$13.25	\$3.25	\$0.00	\$92.45
	12/1/2026	\$61.34	\$16.05	\$13.25	\$3.25	\$0.00	\$93.89

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
TELECOMMUNICATION TECHNICIAN	9/1/2025	\$42.52	\$12.00	\$12.05	\$3.25	\$0.00	\$69.82
TELECOMMUNICATION TECHNICIAN ELECTRICIANS LOCAL 223	9/1/2026	\$44.41	\$12.25	\$12.59	\$3.50	\$0.00	\$72.75
ELECTRICIANS LOCAL 223 ELECTRICIANS LOCAL 223	9/1/2027	\$46.51	\$12.50	\$13.18	\$3.75	\$0.00	\$75.94
For apprentice rates and ratios see "Apprentice- ELECTRICIAN"							
TERRAZZO FINISHERS	8/1/2025	\$66.89	\$11.49	\$15.57	\$8.02	\$0.00	\$101.97
BRICKLAYERS LOCAL 3 BRICKLAYERS LOCAL 3 - MARBLE & TILE	2/1/2026	\$68.24	\$11.49	\$15.57	\$8.02	\$0.00	\$103.32
BRICKLATERS LOCAL 3 - MARBLE & TILE	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

Appr	entice: TERRAZZ	O FINISHERS					
Effect	tive 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

Appro	entice: TERRAZ	ZO FINISHERS					
Effect	tive Date: 2/1/202	26					
Step	Percent	Apprentice Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
1	50.00	\$34.12	\$11.49	\$15.57	\$8.02	\$0.00	\$69.20
2	60.00	\$40.94	\$11.49	\$15.57	\$8.02	\$0.00	\$76.02
3	70.00	\$47.77	\$11.49	\$15.57	\$8.02	\$0.00	\$82.85
4	80.00	\$54.59	\$11.49	\$15.57	\$8.02	\$0.00	\$89.67
5	90.00	\$61.42	\$11.49	\$15.57	\$8.02	\$0.00	\$96.50

TEST BORING DRILLER	6/1/2025	\$51.20	\$10.15	\$9.50	\$9.80	\$0.00	\$80.65
LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2025	\$52.70	\$10.15	\$9.50	\$9.80	\$0.00	\$82.15
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$54.25	\$10.15	\$9.50	\$9.80	\$0.00	\$83.70
	12/1/2026	\$55.75	\$10.15	\$9.50	\$9.80	\$0.00	\$85.20
For apprentice rates see "Apprentice- LABORER"							
TEST BORING DRILLER HELPER	6/1/2025	\$47.32	\$10.15	\$9.50	\$9.80	\$0.00	\$76.77
LABORERS LABORERS - FOUNDATION AND MARINE	12/1/2025	\$48.82	\$10.15	\$9.50	\$9.80	\$0.00	\$78.27
LABORERS - FOUNDATION AND MARINE	6/1/2026	\$50.37	\$10.15	\$9.50	\$9.80	\$0.00	\$79.82
	12/1/2026	\$51.87	\$10.15	\$9.50	\$9.80	\$0.00	\$81.32
For apprentice rates see "Apprentice- LABORER"							
TEST BORING LABORER	6/1/2025	\$47.20	\$10.15	\$9.50	\$9.80	\$0.00	\$76.65
LABORERS	12/1/2025	\$48.70	\$10.15	\$9.50	\$9.80	\$0.00	\$78.15

Issue Date: 11/26/2025

LABORERS - FOUNDATION AND MARINE  For apprentice rates see "Apprentice- LABORER"  TRACTORS/PORTABLE STEAM GENERATORS OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	6/1/2026 12/1/2026 6/1/2025 12/1/2025 6/1/2026	\$50.25 \$51.75 \$57.18 \$58.62 \$59.90 \$61.34	\$10.15 \$10.15 \$16.05 \$16.05	\$9.50 \$9.50 \$13.25 \$13.25	\$9.80 \$9.80 \$3.25 \$3.25	\$0.00 \$0.00	\$79.70 \$81.20 \$89.73
TRACTORS/PORTABLE STEAM GENERATORS OPERATING ENGINEERS LOCAL 4	6/1/2025 12/1/2025 6/1/2026	\$57.18 \$58.62 \$59.90	\$16.05 \$16.05	\$13.25 \$13.25	\$3.25		
OPERATING ENGINEERS LOCAL 4	12/1/2025 6/1/2026	\$58.62 \$59.90	\$16.05	\$13.25		\$0.00	\$89.73
	6/1/2026	\$59.90			\$3.25		
OI EMTING ENGINEERS EOCHE 4			\$16.05	4 - 5	Ψυ.20	\$0.00	\$91.17
	12/1/2026	\$61.34		\$13.25	\$3.25	\$0.00	\$92.45
For apprentice rates see "Apprentice- OPERATING ENGINEERS"			\$16.05	\$13.25	\$3.25	\$0.00	\$93.89
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
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	\$59.43	\$10.15	\$9.50	\$10.25	\$0.00	\$89.33
LABORERS LABORERS (COMPRESSED AIR)	12/1/2025	\$60.93	\$10.15	\$9.50	\$10.25	\$0.00	\$90.83
LABORERS (COMI RESSED AIR)	6/1/2026	\$62.48	\$10.15	\$9.50	\$10.25	\$0.00	\$92.38
	12/1/2026	\$63.98	\$10.15	\$9.50	\$10.25	\$0.00	\$93.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	6/1/2025	\$61.43	\$10.15	\$9.50	\$10.25	\$0.00	\$91.33
LABORERS LABORERS (COMPRESSED AIR)	12/1/2025	\$62.93	\$10.15	\$9.50	\$10.25	\$0.00	\$92.83
ENDORERS (COM RESIDES TIM)	6/1/2026	\$64.48	\$10.15	\$9.50	\$10.25	\$0.00	\$94.38
	12/1/2026	\$65.98	\$10.15	\$9.50	\$10.25	\$0.00	\$95.88
For apprentice rates see "Apprentice- LABORER"							
TUNNEL WORK - FREE AIR	6/1/2025	\$51.50	\$10.15	\$9.50	\$10.25	\$0.00	\$81.40
LABORERS LABORERS (FREE AIR TUNNEL)	12/1/2025	\$53.00	\$10.15	\$9.50	\$10.25	\$0.00	\$82.90
	6/1/2026	\$54.55	\$10.15	\$9.50	\$10.25	\$0.00	\$84.45
For apprentice rates see "Apprentice- LABORER"	12/1/2026	\$56.05	\$10.15	\$9.50	\$10.25	\$0.00	\$85.95
TUNNEL WORK FREE AIR (HAZ WASTE)	6/1/2025	¢52.50	\$10.15	\$0.50	¢10.25	\$0.00	\$92.40
TUNNEL WORK - FREE AIR (HAZ. WASTE) LABORERS	6/1/2025	\$53.50	\$10.15	\$9.50	\$10.25	\$0.00	\$83.40
LABORERS (FREE AIR TUNNEL)	12/1/2025 6/1/2026	\$55.00 \$56.55	\$10.15 \$10.15	\$9.50 \$9.50	\$10.25 \$10.25	\$0.00 \$0.00	\$84.90 \$86.45
	12/1/2026	\$58.05	\$10.15	\$9.50	\$10.25	\$0.00	\$87.95
For apprentice rates see "Apprentice- LABORER"	12/1/2020	Ψ30.03	Ψ10.13	Ψ2.50	Ψ10.23	\$0.00	ψ07.23
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	\$40.09	\$10.15	\$9.50	\$9.11	\$0.00	\$68.85
LABORERS	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.11	\$0.00	\$70.23

Classification	Effective Date	Base Wage	Health	Pension	Annuity	Supplemental Unemployment	Total Rate
LABORERS - ZONE 2	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.11	\$0.00	\$71.67
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.11	\$0.00	\$73.11
	6/1/2027	\$45.80	\$10.15	\$9.50	\$9.11	\$0.00	\$74.56
	12/1/2027	\$47.25	\$10.15	\$9.50	\$9.11	\$0.00	\$76.01
	6/1/2028	\$48.75	\$10.15	\$9.50	\$9.11	\$0.00	\$77.51
	12/1/2028	\$50.25	\$10.15	\$9.50	\$9.11	\$0.00	\$79.01
For apprentice rates see "Apprentice- LABORER"							
WAGON DRILL OPERATOR (HEAVY & HIGHWAY)	6/1/2025	\$40.09	\$10.15	\$9.50	\$9.21	\$0.00	\$68.95
LABORERS LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/1/2025	\$41.47	\$10.15	\$9.50	\$9.21	\$0.00	\$70.33
LABORERS - ZONE 2 (HEAV I & HIGHWAT)	6/1/2026	\$42.91	\$10.15	\$9.50	\$9.21	\$0.00	\$71.77
	12/1/2026	\$44.35	\$10.15	\$9.50	\$9.21	\$0.00	\$73.21
For apprentice rates see "Apprentice- LABORER (Heavy and Highway	7)						
WASTE WATER PUMP OPERATOR	6/1/2025	\$57.83	\$16.05	\$13.25	\$3.25	\$0.00	\$90.38
OPERATING ENGINEERS LOCAL 4 OPERATING ENGINEERS LOCAL 4	12/1/2025	\$59.28	\$16.05	\$13.25	\$3.25	\$0.00	\$91.83
OPERATING ENGINEERS LOCAL 4	6/1/2026	\$60.58	\$16.05	\$13.25	\$3.25	\$0.00	\$93.13
	12/1/2026	\$62.03	\$16.05	\$13.25	\$3.25	\$0.00	\$94.58
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
WATER METER INSTALLER PLUMBERS & PIPEFITTERS LOCAL 51 PLUMBERS & PIPEFITTERS LOCAL 51	8/25/2025	\$55.24	\$10.80	\$16.80	\$4.60	\$0.00	\$87.44

For apprentice rates see "Apprentice-PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"

## Marine Drilling

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

#### **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.

Issue Date: 11/26/2025 Wage Request Number: 20251125200133 Page 36 of 36

# **BID FORMS**

NAME OF BIDDER	

Bids must be submitted on this form and the following table. Bids submitted on any other form will not be considered valid. Please return this form and associated documents to:

Town of Plymouth Procurement Office 26 Court Street Plymouth, MA 02360

Bids must be received in the Procurement Office by 11:00 a.m. on Wednesday, May 28, 2025. Postmarks will not be considered. All bids will be publicly opened and read at the above address, date and time. Prices are to include delivery charges unless otherwise specified. All offers are subject to the Invitation for Bids 22532. Please note your company's name and the Bid Number on the outside envelope of your submission.

In compliance with the above, the undersigned offers and agrees, if this offer is accepted within thirty (30) business days from date of receipt of offers specified above, to perform herein described work for the prices offered opposite each item, and that said prices will be good for the term on the awarded contract.

#### THE OWNER SOLICITS THE FOLLOWING BIDS:

The Bidder agrees to perform all the Work described in the Contract Documents for the following prices:

#	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figures	Total Amount in figures
1.	Mobilization (Item 02 10 00-01)	1	LS	dollars andcents		\$
2.	Site Preparation (Item 02 10 00-02)	1	LS	dollars andcents		\$
3.	Replacement Precast Concrete Panel (Item 03 31 30-01)	6	EA	dollars andcents	\$	\$
4.	Backflow Pit (Item 03 31 30.02)	1	LS	dollars		\$

#	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figures	Total Amount in figures
				andcents		
5.	Timber Pile Post Repair (Item 06 13 00-01)	3	EA	dollars andcents	\$	\$
6.	Timber Pile Replacement (Item 06 13 00-02)	4	EA	dollars andcents	\$	\$
7.	Timber Pile Cap Repair (Item 06 13 00-03)	385	BFM	dollars andcents	\$	\$
8.	Timber Pile Cap Replacement (Item 06 13 00-04)	4900	BFM	dollars	\$	\$
9.	Misc. Timber Repair (Item 06 13 00-05)	500	BFM	dollars	\$	\$
10.	Batter Pile Hardware Repair (Item 06 13 00-06)	5	EA	dollars	\$	\$
11.	Hardware Repair (Item 06 13 00-07)	5	EA	dollars	\$	\$
12.	Mooring Piles (Item 31 62 23-01)	4	EA	dollars andcents	\$	\$
13.	Concrete Floating Docks (Item 35 51 00-01)	1	LS	dollars		\$
	TOTAL BASE BID PRICE:					\$

 DOLLARS
CENTS

TOTAL BASE BID PRICE WRITTEN IN WORDS:

#### **ADD ALTERNATE ITEMS**

## 1. ALTERNATIVE ITEM(S) BID

The Bidder agrees to perform the Work described in the Contract Documents for the following prices should the Owner choose to include this work within the Contract:

#### 2. ALTERNATIVE ITEM BID SCHEDULE

## ADD ALTERNATE 1 – BENT 7

#	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figu	Total Amount in figures
A1.	Timber Pile Cap Replacement (Item 06 13 00-04)	935	BFM	dollars andcents	\$	\$
A2.	Hardware Repair (Item 06 13 00-07)	15	EA	dollars andcents	\$	\$
	TOTAL ALTERNATE BID PRICE:					\$

TOTAL ADD ALTERNATE 1 PRICE WRITTEN IN WORDS:	
	DOLLARS
·	CENTS

## ADD ALTERNATE 2 - BENT 8

#	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figu	Total Amount in figures
B1.	Timber Pile Cap Replacement (Item 06 13 00-04)	935	BFM	dollars andcents	\$	\$
B2.	Hardware Repair (Item 06 13 00-07)	10	EA	dollars andcents	\$	\$
	TOTAL ALTERNATE BID PRICE:					\$

	TOTAL ADD ALTERNATE 2	PRICE \	WRITT	EN IN WORDS:		
					DOLLARS	
					CENTS	
				ADD ALTERNATE 3 – BENT 9		
#	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figu	Total Amount in figures
C1.	Timber Pile Cap Replacement (Item 06 13 00-04)	935	BFM	dollars andcents	\$	\$
C2.	Hardware Repair (Item 06 13 00-07)	10	EA	dollars andcents	\$	\$
	TOTAL ALTERNATE BID PRICE:					\$
	TOTAL ADD ALTERNATE 3	PRICE \	WRITT	EN IN WORDS:		
					DOLLARS	
					CENTS	

## ADD ALTERNATE 4 – BENT 10

#	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figu	Total Amount in figures
D1.	Timber Pile Cap Replacement (Item 06 13 00-04)	935	BFM	dollars andcents	\$	\$
D2.	Hardware Repair (Item 06 13 00-07)	10	EA	dollars andcents	\$	\$
	TOTAL ALTERNATE BID PRICE:					\$

TOTAL ADD ALTERNATE 4 PRICE WRITTEN IN WORDS:	
	DOLLARS
	CENTS

## ADD ALTERNATE 5 – BENT 11

#	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figu	Total Amount in figures
E1.	Replacement Precast Concrete Panel (Item 03 31 30-01)	1	EA	dollars andcents	<b>\$</b>	\$
E2.	Timber Pile Cap Replacement (Item 06 13 00-04)	935	BFM	dollars andcents	\$	\$
E3.	Timber Pile Replacement (Item 06 13 00-02)	1	EA	dollars andcents	\$	\$
	TOTAL ALTERNATE BID PRICE:					\$

					DOLLARS	
					CENTS	
	ADD A	ALTERNA	ATE 6 –	REPLACE ALL PRECAST PANELS BEN	TS 1 TO 4	
	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	Unit rate in figu	Total Amount in figures
•	Replacement Precast Concrete Panel (Item 03 31 30-01)	26	EA	dollars andcents	\$	\$
	TOTAL ALTERNATE BID PRICE:					\$
					DOLLARS	
					DULLARS	
					CENTS	
	ADD ALTERN	ΔTF 7 —	ADDIT	IONAL COST FOR CAST IN PLACE DEC	CENTS	
	ADD ALTERN	ATE 7 –	ADDIT	IONAL COST FOR CAST IN PLACE DEC	CENTS	
	ADD ALTERN  Brief Description of Item	ATE 7 –  Est.  Qty.	ADDIT	Unit Rate in words	CENTS	Total Amount in figures
	Brief Description of Item  Cast-In-Place Concrete Slab	Est.	1		CENTS  CK BENTS 1 TO 4	Amount in
	Brief Description of Item	Est. Qty.	Unit	Unit Rate in words	CENTS  CK BENTS 1 TO 4	Amount in figures
1.	Brief Description of Item  Cast-In-Place Concrete Slab (Item 03 31 30-03)  DEDUCT Replacement	Est. Qty.	Unit	Unit Rate in wordsdollars	CENTS  CK BENTS 1 TO 4	Amount in figures
1.	Brief Description of Item  Cast-In-Place Concrete Slab (Item 03 31 30-03)	Est. Qty.	<b>Unit</b> LS	Unit Rate in wordsdollars andcents	CENTS  CK BENTS 1 TO 4  Unit rate in figure	Amount in figures
i <b>1</b> .	Brief Description of Item  Cast-In-Place Concrete Slab (Item 03 31 30-03)  DEDUCT Replacement Precast Concrete Panel	Est. Qty.	<b>Unit</b> LS	Unit Rate in words dollars andcentsdollars	CENTS  CK BENTS 1 TO 4  Unit rate in figure	Amount in figures
1.	Brief Description of Item  Cast-In-Place Concrete Slab (Item 03 31 30-03)  DEDUCT Replacement Precast Concrete Panel (Item 03 31 30-01)  TOTAL ALTERNATE BID PRICE:	Est. Qty.	Unit LS EA	Unit Rate in words dollars andcents dollars andcents	CENTS  CK BENTS 1 TO 4  Unit rate in figure	Amount in figures  \$
1.	Brief Description of Item  Cast-In-Place Concrete Slab (Item 03 31 30-03)  DEDUCT Replacement Precast Concrete Panel (Item 03 31 30-01)  TOTAL ALTERNATE BID	Est. Qty.	Unit LS EA	Unit Rate in words dollars andcents dollars andcents	CENTS  CK BENTS 1 TO 4  Unit rate in figure	Amount in figures  \$
61.	Brief Description of Item  Cast-In-Place Concrete Slab (Item 03 31 30-03)  DEDUCT Replacement Precast Concrete Panel (Item 03 31 30-01)  TOTAL ALTERNATE BID PRICE:	Est. Qty.	Unit LS EA	Unit Rate in words dollars andcents dollars andcents	CENTS  CK BENTS 1 TO 4  Unit rate in figure	Amount in figures  \$

**BASIS OF CONTRACT AWARD:** The Town of Plymouth's Basis of Award will be determined by the available funding for the project. Additive Alternatives, if included, will be selected in order and cannot be taken out of sequence.

All Bidders will be first evaluated for award on the Base Bid to confirm the project is within the available funding. If the available project funding exceeds the lowest responsive Base Bid, the Town will review all Bids with the inclusion of Alternative 1 and determine if any bids are within the available project funding. If so, the Town will proceed to the review of all Bids with the inclusion of Additive Alternative 1 and 2 and determine if any bids are within the available project funding. This process will continue with inclusion of subsequent Additive Alternatives until the lowest responsive bid total is greater that available project funding. At that point, the Town will select the lowest responsive Bidder, with the inclusion of accepted Additive Alternatives, that are within the available funding for the project.

The Town of Plymouth reserves the right to add additional funding to the project should it be in its best interest for maximizing the construction for the available funding.

#### NOTE:

- The estimated quantities for unit price pay items are approximate only and are included solely for the purpose of comparison of bids. The quantities are based on estimates of the work to be performed during the term on the Contract; however, the Owner does not expressly or by implication agree or warrant that the actual amount of work will correspond with such estimates and the Owner reserves the right to increase or decrease the amount of any class or portion of the work as it may deem necessary, without change of price per unit, which unit prices shall be used for increase and decreases (credits) for adjustments in the quantity of work required.
- All prices, except item totals, shall be stated both in words and figures. Discrepancies between unit prices and their respective total amounts will be resolved in favor of the unit price. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- All structural works should be priced for being installed with appropriate finishing works. Shop Drawings may be required for any additional design work.
- The successful bidder shall submit for review by the Owner, documentation to establish a "direct labor mark-up" for change orders which may be executed.
- The Owner reserves the right to withhold the fair market value for work not completed, in addition to the retainage on work completed as described in the Bid Documents.
- Unbalanced bid items will specifically be subject to review and to this potential withholding from periodic payment applications.

### THE FOLLOWING ITEMS ARE TO BE SUBMITTED WITH THE BID:

- This completed and signed Bid Form
- o Bid Security (5%)
- Delegation of Authority Form
- Certificate of Non-Collusion
- Certificate of OSHA Training
- Certificate of Tax Compliance
- Statement of Bidder's Qualifications

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF ADDENDA #\_\_\_\_\_\_.

\*To be filled in by bidder if addenda are issued.

PLEASE NOT ANY EXCEPTIONS OF SEPARATE CONTRACTOR LETTERHEAD.

#### THE UNDERSIGNED BIDDER HEREBY CERTIFIES:

No person in the employ of the Town of Plymouth has any pecuniary interest in this proposal or in the Contract for work, which is proposed.

Bidder has carefully read and examined all the documents herein referred to, and knows and understands the terms and provisions therein. Bidder has satisfied themselves by personal examination of the site, and by such other means as they may wish, as to the actual conditions there existing, the character and requirements of the work, and the difficulties attendant upon its execution.

Bidder agrees that if this bid is accepted, they will contract with the Owner, as provided for in the Bid Documents, and that they will perform all the work, furnish all the material and equipment, and provide all labor, services, plant, machinery, apparatus, appliances, tools, supplies, and all other things required by the documents in the manner and within the time therein prescribed and according to the requirements of the Owner as therein set forth, and that they will take in full payment therefore, the lump sum applicable to the project as offered below.

Bidder understands that information relative to subsurface and other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) has been furnished only for their information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered

will be the same as those shown on the drawings or in any of the other Contract Documents, and agrees that the Bidder shall not use or be entitled to any such information made available to them through the Contract Documents or otherwise, or obtained by them in their own examination of the site, as a basis of or ground for any claim against the Owner or Engineer arising from or by reason of any variance which may exist between the aforesaid information made available to or acquired by them and the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered during the construction work, and has made due allowance therefor in this bid.

The foregoing bid is based upon the payment to laborers to be employed on the project of wages in an amount not less than the applicable prevailing wage rates established for the project by the Massachusetts Department of Labor Standards. The undersigned bidder agrees to indemnify the Owner for, from and against any loss, expense, damages, action or claims, including any expense incurred in connection with any delay or stoppage of the project work, arising out of or as a result of (1) the failure of the said bid to be based upon the payment of the said applicable prevailing wage rates or (2) the failure of the bidder, if selected as the Contractor, to pay laborers employed on the project the said applicable prevailing wage rates.

Bidder is able to furnish labor that can work in harmony will all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United State Occupation Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work, and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that they will comply fully with all laws and regulation applicable to awards made subject to M.G.L. c.149 §44A.

Bidder agrees that they will fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitle "Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons)". The Contractor shall not award any subcontracts or purchase any materials from suppliers that appear on the Excluded Parties List System. The Contractor shall include this requirement in each subcontract, and require it to be included in all subcontracts regardless of tier. The Contractor shall maintain reasonable records to demonstrate compliance with these requirements.

Bidder will comply with the specific affirmative action steps contained in the EEO/AA provisions of this Contract, including compliance with the Disadvantaged Business Enterprise provisions are required under these Contract provisions. The Contract receiving the award of the Contract shall incorporate the EEO/AA provisions of this Contract into all subcontracts and purchase orders so that such provisions will be binding upon each subcontractor or vendor.

Town of Plymouth 22532 Town Wharf Repairs and Float Expansion BID FORMS – Page 10

THE UNDERSIGNED BIDDER HEREBY CERTIFIES UNDER THE PAINS AND PENTALTIES OF PERJURY THE FOLLOWING:

This bid in all respects is bona fide, fair, and made without collusion or fraud with any other person. As used in this paragraph, the word PERSON shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

Bidder has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support in accordance with M.G.L. c.62C §49A.

Bidder is not presently debarred from doing public construction work in the Commonwealth of Massachusetts under the provisions of M.G.L. c.29 §29F, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated there under.

RIDDEK		 		
ADDRESS		 		
PHONE		 		
EMAIL				
AUTHORIZED	SIGNATURE	 		
Printed Name	and Title	 	 	
Date Offered				

# **DELEGATION OF AUTHORITY**

To be completed if this business is a corporation.

At a meeting of the Board of Directors of	duly called and
	Name of Corporation)
held on at which a quore	um was present, and acting throughout, the
(Date)	
Following vote was duly adopted: VOTED: The	at the
	(Name of Individual)
of the Corporation	, hereby is authorized to affix the Corporate
(Title)	
Seal, sign and deliver in the name and on contracts, bills of sale, conditional sale agre applications, affidavits, certificates, and a connection with sale of the Corporation's product and satisfactions of any such documents.	eements, chattel mortgages, leases, bonds, any other similar documents required in
Any and all applications, affidavits, staten required by law in connection with the licensir the sale, distribution, and servicing of its com-	ng of the Corporation or its representatives for
The authority is hereby delegated and sha connection	ll be exercised by the aforesaid person in
with the duties as	of
	(Name of Corporation)
and not otherwise.	, , ,
ATTEST:	DATE

## **CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under the penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

(Signature of person signing bid or proposal)
(Name of business)

## **CERTIFICATE OF OSHA TRAINING**

In accordance with M.G. L. C.30, S employees of	.39S: The undersigned hereby certifies that all
United States Occupational Safet duration at the time the employee successful completion of said coulall employees to be employed in the	(Name of Company) to be employed at the worksite will burse in construction safety and health approved by the y and Health Administration that is at least 10 hours in es begins work and who shall furnish documentation of rse with the first payroll report for each employee and that he work subject to this bid have successfully completed a health approved by the United States Occupational Safety at least 10 hours in duration.
(Authorized Signature)	
(Title)	
(Date)	

## **CERTIFICATE OF TAX COMPLIANCE**

Pursuant to Chapter 62C of the Massachusetts General Laws, Section 49A(b), I,
, authorized signatory for, d
hereby certify under the pains and penalties of perjury that said contractor has complied with all laws of the Commonwealth of Massachusetts relating to taxes.
CONTRACTOR
By: (Signature of Authorized Representative)
Title
Date