

TOWN OF PLYMOUTH  
PROCUREMENT DIVISION  
11 LINCOLN STREET  
PLYMOUTH, MASSACHUSETTS 02360

BID 21536, COMMUNICATIONS TOWER AND COMPOUND

Issued: August 6, 2015  
Pre-Bid: August 12, 2015, at 11:00 A.M.  
Due: August 28, 2015, at 11:00 A.M.

Plans and specifications prepared by:

Woodard & Curran Inc.  
Suite 406 - 1699 King Street  
Enfield, CT 06082

THE PAGE HAS BEEN INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

<u>Title</u>	<u>Page</u>
A. Invitation To Bid	3
Contract Period	3
Rule for Award	3
Bid Deposit	3
Mandatory Pre-Bid Conference	4
Mass DOT Prequalification	4
Prevailing Wage Rates	4
Labor and Materials Bond	4
Performance Bond	4
B. General Information	5
C. Contract Award	9
D. Insurance Requirements	9
E. Withdrawal of Bids	11
F. Bid Status Information	11
G. Bid Questions	11
Special Conditions	12
Owner/Contractor Agreement	18
Contractual Liability Form	34
<b>BID FORM</b>	<b>36</b>
<b>ATTACHMENTS:</b>	
1: Prevailing Wage Rates	42
2: General Requirements	81
3: Technical Specifications	133
4: Available Project Information	218
<b>PLANS:</b>	
2015.07.24 Tower Plan Set	
AGB9370 Stamped Prints Plymouth Shelter	
Valmont Tower Final	

THE PAGE HAS BEEN INTENTIONALLY LEFT BLANK

TOWN OF PLYMOUTH  
11 Lincoln Street  
Plymouth, Massachusetts 02360

August 6, 2015

INVITATION FOR BID 21536

**A. INVITATION**

Sealed bids are requested by the Town of Plymouth for the Pine Hills Communication Tower and Compound, which includes, but is not limited to: site work; furnishing and erecting a 150 foot communications tower; providing a generator set; concrete pads and foundations for tower, generator set and Owner furnished equipment shelter; placement of Owner furnished equipment shelter; Site electrical and grounding work; security fencing; and providing all materials, equipment, services and construction inherent to the Work, and providing all materials, equipment, services and construction inherent to the Work.

Specifications are available electronically online at no cost by completing the registration page on the Town's website at <http://www.plymouth-ma.gov/current-bids>.

Bids are to be submitted by 11:00 a.m. (local time), Friday, August 28, 2015, 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 21536, Communications Tower".

All bids are subject to the provisions of M.G.L. Chapter 30, §39M, and these bid and contract documents.

**Contract Period**

The agreement shall be for the period as specified in the agreement. Time is of the essence with regard to completion of the Work required by the Contract. The Work shall be substantially complete within 90 calendar days from the commencement of Contract Time and completed and ready for final payment 120 calendar days from the commencement of Contract Time.

**Rule for Award:**

The agreement will be awarded to the responsive, responsible and eligible bidder offering the lowest lump sum bid price selected by the Town.

**Bid Deposit:**

Bid deposit is required in the amount of five percent (5%) of the total amount of the bid, including any and all alternates. 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 qualified to do business in the Commonwealth of Massachusetts and satisfactory to the Town. All bid deposits

except for those of the three lowest responsible and eligible bidders shall be returned within seven days of contract award. The remaining bid deposits will be returned upon execution of a contract and presentment of all bonds by the successful low bidder.

**Pre-Bid Conference:**

Any person interested in submitting a bid is encouraged to attend a pre-bid conference on Wednesday, August 12, 2015, at 11:00 a.m. in the Mayflower 2 Meeting Room of the Town Hall, 11 Lincoln Street, Plymouth, MA. A site visit will follow. All inspections are to be completed during that time. Notwithstanding whether a bidder performs such an inspection, each bidder shall be deemed to have done so, and to be aware of any and all matters that are reasonably discernable from such an inspection.

**MASS DOT Prequalification: N/A**

**Prevailing Wage Rates:**

This bid is subject to Section 39M of Chapter 30 and Sections 26 to 27G and Section 29 of Chapter 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 the contract, and shall furnish to the Commissioner within fifteen (15) days a statement of compliance, a copy of which is enclosed herein. In addition, each contractor and/or subcontract must submit a copy of their weekly payroll records to the Procurement Division on a weekly basis. A copy of the Weekly Payroll Report Form that is to be used in also included herein.

Prevailing wage rate sheets shall be updated annually. The contractor shall not be eligible for an adjustment to the contract price on account of any changes in the prevailing wage rates applicable to the project.

**Labor and Materials Bond:**

This bid is subject to Section 39M of Chapter 30 and Sections 26 to 27G and Section 29 of Chapter 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 of One Hundred Percent (100%) of the total contract price for payment of labor performed or furnished and material used or employed therein, payable to the Town of Plymouth, issued by a responsible surety company qualified to do business in the Commonwealth of Massachusetts and satisfactory to the Town, the premiums of which are to be paid by the Contractor and included in the bid price.

**Performance Bond:**

The successful bidder must furnish a One Hundred Percent (100%) Construction performance Bond, payable to the Town of Plymouth, issued by a responsible surety company qualified to do business in the Commonwealth of Massachusetts and satisfactory to the Town, the premiums of which are to be paid by the Contractor and included in the bid price.

## GENERAL INFORMATION

### B. GENERAL CONDITIONS

1. All bids shall be based on the quantities set forth in the Bid Form. These quantities shall be used as a basis for comparison of the bids. The quantities are based on estimates of the work to be performed during the term of this Contract; however, the Town does not expressly or by implication agree or warrant that the actual amount of work will correspond with such estimates 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, which unit prices shall be used for increases and decreases (credits) for adjustments in the quantity of work required.
2. The Town of Plymouth reserves the right to reject all bids, to waive informalities, to advertise for new bids and, if the Invitation for Bids states that more than one (1) contract may be awarded, to split awards as may be deemed to be in the best interests of the Town. The contract or contracts 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.
3. 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. More than one bid from the same bidder will not be considered.
4. **If the Invitation for Bid requires payment of prevailing wage rates or submission of performance or payment bonds**, then this bid is subject to Section 39M of Chapter 30 and Sections 26 to 27G and Section 29 of Chapter 149 of the Massachusetts General Laws as amended, including but not limited to the following:
  - a. **Prevailing Wage Rates**  
Prevailing wage rates as determined by the Commissioner of Labor and Industries must be paid on this contract. A copy of said rates is contained herein. Each Contractor and subcontractor shall preserve its payroll records for a period of three (3) years from this date of completion of the contract, and shall furnish to the Owner within fifteen (15) days of completion of its portion of the work a statement of compliance, a copy of which is enclosed herein. In addition, each contractor and/or subcontractor must submit a copy of their weekly payroll records to the Town Manager's Office on a weekly basis. A copy of the Weekly Payroll Report Form that is to be used in also included herein.

Prevailing wage rates will be updated annually; however, the contractor shall not be entitled to any additional compensation on account of any adjustments in such rates.

- b. Performance Bond  
The successful bidder must furnish a Construction Performance Bond in the amount specified, payable to the Town of Plymouth, issued by a responsible surety company qualified to do business in the Commonwealth of Massachusetts and satisfactory to the Town, the premiums of which are to be paid by the Contractor and included in the bid price.
- c. Payment Bond  
The successful bidder must furnish bond for payment of labor performed or furnished and material used or employed therein in the amount specified, payable to the Town of Plymouth, issued by a responsible surety company qualified to do business in the Commonwealth of Massachusetts and satisfactory to the Town, the premiums of which are to be paid by the Contractor and included in the bid price.

- 5. **If the Invitation for Bid requires bid surety**, each bid shall be accompanied by a bid deposit in the amount of five (5) percent of the total bid price, including any alternates. Such bid deposit shall be in the form of a cashier's check, certified check, or bank treasurer's check payable to the Town of Plymouth or a bid bond from a licensed surety company qualified to do business in Massachusetts and satisfactory to the Town. Failure to include this bid deposit will result in the rejection of the bid. Such deposits will be returned to all except the three lowest responsible and eligible bidders within seven (7) days of contract award. The remaining bid deposits will be returned after the Town and the successful bidder have executed the Contract and such bidder has furnished all required bonds. In case of default, the bid deposit shall be forfeited to the Town.
- 6. The successful bidder shall comply with all applicable federal, state, and local laws and regulations.
- 7. The Town's policy on awarding bids 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 or more bid prices are identical and all tied bidders are responsive and responsible, an award will be made according to the first of these three conditions to apply:
  - a. Past service to the Town; if one of the tied bidders has provided this or similar service 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 of more than two are tied."

Each bidder, by submitting a bid, agrees to the above policy and its use in the event of a tie.

- 8. Purchases made by the Town are exempt from sales taxes and bid prices must exclude any such taxes. Tax exemption certificates will be furnished with the executed agreement or upon request.

9. Oral 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 Seller or Contractor and may result in an unenforceable claim.
10. "Equal" - An item "equal" to that named or described in the specifications 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 Section 39J of Chapter 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 or as necessary. 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 Section 39J of Chapter 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.

11. No charges will be allowed for packing, crating, freight, express, transportation, shipping or cartage. Delivery location shall be as specified in the Contract or on the Purchase Order.
12. In addition to any other rights, remedies, and warranties available to the Town: The Contractor warrants that its work shall be free of defects in materials and workmanship for a period of one year from the date of final completion/acceptance, and shall replace, repair or make good, without costs to the Town, defects or faults arising within such one (1) year period.
13. 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.

14. **If funds under G.L. c. 90 are used to pay for any of the Work, a Price Adjustment clause for Hot Mix Asphalt Mixtures shall apply to the contract.** (If such funds are not used, this provision shall not apply.) Municipalities are required to include price adjustment clauses for diesel fuel, gasoline, liquid asphalt, Portland cement concrete, structural steel and reinforcing steel in the bid documents of all construction contracts funded by the Massachusetts Chapter 90 Program.

This provision applies to all hot mix asphalt mixtures containing liquid asphalt.

The base price of liquid asphalt on the project will be a fixed price based on the date of bid opening per ton, which includes State Tax.

The price adjustment will be based on the variance in price for the liquid asphalt component only from the base price to the Period Price. It shall not include transportation or other charges.

The Period Price for Hot Mix Asphalt for a two (2) month period (FOB Terminal) will be determined and published by the Massachusetts Department of Transportation (MassDOT) (<http://www.massdot.state.ma.us/>) by averaging the prices posted at the beginning, middle, and end of each two month period by two or more suppliers.

The contract price of the hot mix asphalt mixture will be paid under the respective item in the contract. The price adjustment, as herein provided, upward and downward, will be made as work is performed, using the most recent previous price adjustment Item until the applicable Period Price is established.

The asphalt content for hot mix asphalt mixtures shall be 5.5% (0.055) by weight regardless of percentages established by the Job Mix Formula as described in Material Section M3.11.03 of the Standard Specification.

The price adjustment will be a separate payment item. It will be determined by multiplying the number of tons of hot mix asphalt placed during each previous two month period by asphalt content percentage (0.055) times the variance in price between base price and Period Price of asphalt.

No price adjustment will be allowed beyond the completion date of the contract, unless there is an approved extension of time by the municipality.

### 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 and 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 form package to the satisfaction of the Town.
2. A bidder will be deemed responsible and eligible if:
  - (1) its bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work;
  - (2) it shall certify, that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work;
  - (3) 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 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;
  - (4) where the provisions of Section 8B of Chapter 81 apply, the bidder shall have been determined to be qualified thereunder; and
  - (5) if the bidder obtains within 10 days of the notification of contract award the security by bond required under Section 29 of Chapter 149;
  - (6) if the bidder provides a list of at least three (3) similar projects its organization has completed in Massachusetts within the last five (5) years, include owner contact information, location of project, and type, character, and magnitude of project.

### 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 him performing work covered by this Contract, or the Town of Plymouth and its employees, agents and officials, from all claims an liability for damages for 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:
  - (1) General Liability of at least \$1,000,000 Bodily Injury and Property Damage Liability, Combined Single Limit with a \$2,000,000 Annual Aggregate Limit. **The Town and Engineer shall be named as an "Additional Insured"**. Products and Completed Operations should be maintained for up to 3 years after the completion of the project.
  - (2) Automobile Liability of at least \$1,000,000 Bodily Injury and Property Damage per accident. **The Town and Engineer shall be named as an "Additional Insured"**.
  - (3) Workers' Compensation Insurance as required by law.
  - (4) Property Coverage 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.
  - (5) Umbrella Liability of at least \$3,000,000/ occurrence, \$3,000,000/aggregate. **The Town and Engineer shall be named as an Additional Insured.**
3. All policies shall be so written that the Owner will be notified of cancellation or restrictive amendment at least fifteen (15) 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 Owner before operations are begun.
4. Such certificates shall not merely name the types of policy provided, but shall specifically refer to this Contract and shall state that such insurance is required by this Contract. The Contractor shall make no claims against the Town of Plymouth or its officers for any injury to any of his officers or employees or for damage to its 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, his employees, agents, sub-contractors 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, his employees, agents, sub-contractors or materialmen, including damages caused by his, its or their 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. WITHDRAWAL OF BIDS**

Except as hereinafter expressed provided, once a bid is submitted and received by the Town, the bidder agrees that he may not and will not withdraw it within thirty (30) days (Saturdays, Sundays, and legal holidays excluded) after the actual date of the opening of proposals.

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

1. at any time prior to the designated time for the opening of proposals;
2. after the designated time for the opening of bids, a bid may be withdrawn only after a contract has been signed by the successful general bidder and Owner and such bidder has furnished all required bonds. Otherwise, a bidder withdrawing its bid after such designated time shall forfeit its bid deposit.

Unless a bid is withdrawn as provided above, the bidder agrees that its bid shall be deemed open for acceptance until a contract has been executed with the low bidder and such bidder has furnished all required bonds, or until the town notifies the bidder in writing that his bid is rejected or that the town does not intend to accept it, or returns his bid deposit. Notice of acceptance of a bid shall not constitute rejection of any other bid.

#### **F. BID STATUS INFORMATION**

**Addenda:** If you received bid documents from the Town and provided the Town with an accurate email address and fax number for delivery of addenda, the Town intends to deliver notification of each addendum to you at such address or fax number, but the Town shall not be responsible for any failure of a bidder to receive any addenda for any reason. All addenda will be available on the Town's website at <http://www.plymouth-ma.gov/current-bids>.

Notwithstanding the foregoing, bidders are solely responsible to check for and confirm their receipt of any addenda in advance of the bid deadline.

**A register of Bids, when available,** will be available on the Town's website at <http://www.plymouth-ma.gov/bid-results>.

**Notification of award of contract** will be mailed to all bidders and/or posted on the Town's website.

#### **g. BID QUESTIONS**

Please contact Pamela D. Hagler, Procurement Officer, at 508-747-1620

ext. 107, if you have any questions on the bid process. Questions regarding the project or the specifications must be submitted in writing and faxed to 508-830-4133 or emailed to [phagler@townhall.plymouth.ma.us](mailto:phagler@townhall.plymouth.ma.us) no later than **4:00 p.m., August 18, 2015**. 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 FORM. 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, HE/SHE MAY ORDER THE CONTRACTOR TO INCREASE THE EFFICIENCY, CHANGE THE CHARACTER OR INCREASE THE EQUIPMENT, AND THE CONTRACTOR SHALL CONFORM TO SUCH ORDER. THE GIVING OR FAILURE TO GIVE SUCH ORDER BY THE TOWN SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS/HER 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, HE/SHE 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 WORK BEYOND THE NORMAL DAY IS TO BE PERFORMED, THE CONTRACTOR WILL RECEIVE NO EXTRA PAYMENT, AND COMPENSATION FOR SUCH WORK 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, PROVIDED THAT ANY APPROVAL OR LACK OF APPROVAL SHALL NOT RELIEVE CONTRACTOR OF ITS OBLIGATIONS HEREUNDER. NO MATERIALS SHALL BE DELIVERED TO THE WORK SITE 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. MATERIALS OR EQUIPMENT OF OTHER SUPPLIERS MAY BE ACCEPTED BY THE TOWN IF SUFFICIENT INFORMATION, AS DETERMINED BY THE TOWN, IS SUBMITTED BY CONTRACTOR TO ALLOW TOWN TO DETERMINE THAT THE MATERIAL OR EQUIPMENT PROPOSED IS (1) AT LEAST EQUAL IN QUALITY, DURABILITY, APPEARANCE, STRENGTH AND DESIGN TO THE MATERIAL OR EQUIPMENT NAMED, (2) IT WILL PERFORM AT LEAST EQUALLY THE FUNCTION IMPOSED BY THE GENERAL DESIGN FOR THE WORK BEING

CONTRACTED FOR OR THE EQUIPMENT OR MATERIAL BEING PURCHASED, AND (3) IT CONFORMS SUBSTANTIALLY, EVEN WITH DEVIATIONS, TO THE DETAILED REQUIREMENTS FOR THE EQUIPMENT OR MATERIAL IN THE SPECIFICATIONS. THE PROCEDURE FOR REVIEW BY TOWN WILL INCLUDE THE FOLLOWING: REQUESTS FOR REVIEW OF SUBSTITUTE ITEMS OF MATERIAL AND EQUIPMENT WILL NOT BE ACCEPTED BY TOWN FROM ANYONE OTHER THAN CONTRACTOR. IF CONTRACTOR WISHES TO FURNISH OR USE A SUBSTITUTE ITEM OF MATERIAL OR REQUIREMENT, CONTRACTOR SHALL MAKE WRITTEN APPLICATION TO TOWN FOR ACCEPTANCE THEREOF CERTIFYING THAT THE PROPOSED SUBSTITUTE SATISFIES THE CRITERIA STATED ABOVE. THE APPLICATION WILL CERTIFY THAT THE EVALUATION AND ACCEPTANCE OF THE PROPOSED SUBSTITUTE WILL NOT DELAY CONTRACTOR'S ACHIEVEMENT OF SUBSTANTIAL COMPLETION WITHIN THE TIME STATED IN THE CONTRACT DOCUMENTS, AND MUST STATE WHETHER OR NOT ACCEPTANCE OF THE SUBSTITUTE FOR USE IN THE WORK WILL REQUIRE A CHANGE IN ANY OF THE CONTRACT DOCUMENTS, AND WHETHER OR NOT INCORPORATION OR USE OF THE SUBSTITUTE IN CONNECTION WITH THE WORK IS SUBJECT TO PAYMENT OF ANY LICENSE FEE OR ROYALTY. IF THE APPLICATION IS SILENT ON SUCH MATTERS, THE BIDDER, BY SUBMITTING AN APPLICATION, WILL BE DEEMED TO HAVE SO CERTIFIED, AND TO HAVE STATED THAT NO CHANGE IN THE CONTRACT DOCUMENTS IS NECESSARY AND NO LICENSE FEES OR ROYALTY PAYMENTS ARE REQUIRED.

ALL VARIATIONS OF THE PROPOSED SUBSTITUTE FROM THAT SPECIFIED MUST BE IDENTIFIED BY CONTRACTOR IN THE APPLICATION TOGETHER WITH AVAILABLE MAINTENANCE, REPAIR AND REPLACEMENT SERVICE FOR THE SUBSTITUTE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF ANY NECESSARY REDESIGN AND CLAIMS OF OTHER CONTRACTORS RESULTING FROM THE PROPOSED SUBSTITUTE. TOWN MAY REQUIRE CONTRACTOR TO FURNISH AT CONTRACTOR'S EXPENSE ADDITIONAL DATA ABOUT THE PROPOSED SUBSTITUTE.

IF A SPECIFIC MEANS, METHOD, TECHNIQUE, SEQUENCE OR PROCEDURE OF CONSTRUCTION IS EXPRESSLY REQUIRED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR MAY FURNISH OR UTILIZE A SUBSTITUTE MEANS, METHOD, SEQUENCE, TECHNIQUE OR PROCEDURE OF CONSTRUCTION ACCEPTABLE TO TOWN, IF CONTRACTOR SUBMITS SUFFICIENT INFORMATION TO ALLOW TOWN TO DETERMINE THAT THE SUBSTITUTE PROPOSED IS EQUIVALENT TO THAT INDICATED OR REQUIRED BY THE CONTRACT DOCUMENTS. THE PROCEDURE FOR REVIEW BY TOWN WILL BE SIMILAR TO THAT STATED PREVIOUSLY. NOTWITHSTANDING ANY ACCEPTANCE OF THE TOWN AND UNLESS OTHERWISE EXPRESSLY AGREED IN WRITING BY THE TOWN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES, LOSSES, COSTS, EXPENSES, AND CLAIMS ARISING OUT OF THE SUBSTITUTE MEANS, METHOD, SEQUENCE, TECHNIQUE OR PROCEDURE.

TOWN WILL BE ALLOWED A REASONABLE TIME WITHIN WHICH TO EVALUATE EACH PROPOSED SUBSTITUTE. TOWN WILL BE THE SOLE JUDGE OF ACCEPTABILITY, AND NO SUBSTITUTE WILL BE ORDERED, INSTALLED OR UTILIZED WITHOUT TOWN'S PRIOR WRITTEN ACCEPTANCE, WHICH WILL BE EVIDENCED BY EITHER A CHANGE ORDER OR AN APPROVED SHOP DRAWING. TOWN MAY REQUIRE CONTRACTOR TO FURNISH AT CONTRACTOR'S EXPENSE A SPECIAL PERFORMANCE GUARANTEE OR OTHER SURETY WITH RESPECT TO ANY SUBSTITUTE.

TOWN WILL RECORD TIME REQUIRED BY TOWN AND TOWN'S CONSULTANTS IN EVALUATING SUBSTITUTIONS PROPOSED BY CONTRACTOR AND IN MAKING CHANGES IN THE CONTRACT DOCUMENTS OCCASIONED THEREBY. WHETHER OR NOT TOWN ACCEPTS A PROPOSED SUBSTITUTE, THE CONTRACTOR SHALL REIMBURSE TOWN FOR THE CHARGES OF TOWN'S CONSULTANTS FOR EVALUATING EACH PROPOSED SUBSTITUTE, AND SHALL, UNLESS OTHERWISE EXPRESSLY AGREED IN WRITING BY THE TOWN, BE RESPONSIBLE FOR ALL DAMAGES, LOSSES, COSTS, EXPENSES, AND CLAIMS ARISING OUT OF THE USE OF THE PROPOSED SUBSTITUTE ITEM, EQUIPMENT, MATERIAL, MEANS, METHOD, SEQUENCE, TECHNIQUE OR PROCEDURE.

#### **TEMPORARY UTILITIES**

THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR AND FURNISH AT HIS/HER EXPENSE ALL WATER, ELECTRIC, TELEPHONE OR OTHER UTILITY REQUIRED BY HIM/HER 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 ARRANGEMENT 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. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROPER AUTHORITIES OR UTILITY BEFORE PROCEEDING WITH THE WORK POTENTIALLY AFFECTED THEREBY.

#### **SAFETY CONTROL**

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL REQUIRED SAFETY EQUIPMENT SUCH AS BARRICADES, DETOUR BARRIERS AND SIGNS, LIGHTS, WALKWAYS, FENCES, FIRE PREVENTION EQUIPMENT. IF AT ANY TIME BEFORE THE COMMENCEMENT OR DURING THE PROGRESS OF THE WORK, OR ANY PART OF IT, SUCH METHODS AND PROCEDURES AS USED APPEAR TO THE TOWN AS UNSAFE, INSUFFICIENT OR IMPROPER, THE TOWN SHALL HAVE THE RIGHT, BUT UNDER NO CIRCUMSTANCES THE OBLIGATION, TO ORDER THE CONTRACTOR TO INCREASE THEIR SAFETY OF EFFICIENCY OR TO IMPROVE THEIR CHARACTER, AND THE CONTRACTOR SHALL CONFORM TO SUCH ORDERS. THE GIVING OR FAILURE OF THE TOWN TO GIVE SUCH ORDER TO INCREASE OF SUCH SAFETY, EFFICIENCY, ADEQUACY OR ANY IMPROVEMENTS SHALL NOT RELEASE THE CONTRACTOR FROM HIS/HER OBLIGATION TO SECURE THE SAFE CONDUCT AND QUALITY OF WORK SPECIFIED AND FOR ALL DAMAGES, INJURIES, LOSSES, COSTS AND EXPENSES ARISING FROM ANY FAILURE OF CONTRACTOR TO COMPLY WITH THAT OBLIGATION.

#### **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), AS SAME MAY BE AMENDED, SUPPLEMENTED OR SUPERSEDED.

#### **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 DIRECTOR OF PUBLIC WORKS OR HIS/HER DESIGNEE.

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, HE/SHE 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, ANIMAL 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 <http://www.massdot.state.ma.us/highway/Main.aspx>) 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 TOWN. 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 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 HIS/HER OWN EXPENSE, SHALL CARE FOR, REPLACE, AND RESTORE ANY PUBLIC AND PRIVATE PROPERTY (E.G., SHRUBS, HEDGES, TREES, PUBLIC OR PRIVATE WAYS, SEWER DRAIN, WATER OR OTHER PIPES, CATCH BASINS, WIRES, BUILDING, FENCES, POSTS, POLES, MAILBOXES, STONE WALLS OR OTHER STRUCTURES) DAMAGED BY HIS/HER WORK, EQUIPMENT, OR EMPLOYEES, TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS OR, IF BETTER, TO GOOD CONDITION, AND TO THE SATISFACTION OF THE TOWN.

THE CONTRACTOR SHALL ALSO RESTORE, AT ITS COST, TO ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE TOWN, ANY LAWN OR OTHER PLANTED AREA INTERFERED WITH, INCLUDING FERTILIZING, LOAMING, AND SEEDING AS REQUIRED.

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 HIS/HER EXPENSE.

THE CONTRACTOR SHALL EMPLOY A REGISTERED LAND SURVEYOR TO RESET ALL BOUNDS AND PROPERTY MARKERS.

**TELEPHONE NUMBERS**

THE TELEPHONE NUMBERS OF THE FOLLOWING DEPARTMENTS OF THE TOWN OF PLYMOUTH ARE

POLICE	508-830-4220 (BUSINESS)
FIRE	508-830-4213 (BUSINESS)
HIGHWAY	508-830-4162, ext. 101
WATER	508-830-4162, ext. 138
ENGINEERING	508-747-1620, ext. 120
SEWER	508-830-4159
DIRECTOR OF PUBLIC WORKS	508-830-4162, ext. 105

TOWN OFFICE BUILDING HOURS: M - F 7:30 A.M. TO 4:00 P.M.

**LEGAL REQUIREMENTS**

THE CONTRACTOR SHALL KEEP HIM/HERSELF 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 HIS/HER EMPLOYEES OR THE CONDUCT OF THE WORK OF MATERIALS USED ON SAID WORK.

**PERSONAL SUPERVISION BY CONTRACTOR**

THE CONTRACTOR OR HIS/HER DULY AUTHORIZED AND APPROVED REPRESENTATIVE SHALL GIVE PERSONAL ATTENTION TO THE FULFILLMENT OF THE CONTRACT. THE CONTRACTOR SHALL HAVE ON THE WORK SITE, AT ALL TIMES, A COMPETENT FULL-TIME REPRESENTATIVE AUTHORIZED TO RECEIVE AND EXECUTE ANY ORDERS OF DIRECTION OF THE TOWN.

THE REPRESENTATIVE SHALL ALSO BE AUTHORIZED TO ACCEPT, ON BEHALF OF CONTRACTOR, 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 HIS/HER OPERATIONS IN AS CLEAN AND NEAT A CONDITION AS IS POSSIBLE. HE/SHE SHALL DISPOSE OF ALL RESIDUE RESULTING FROM THE CONSTRUCTION WORK ON A DAILY BASIS AND, AT THE CONCLUSION OF THE WORK, HE/SHE 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.

OWNER/CONTRACTOR AGREEMENT

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 2015, by and between the TOWN OF PLYMOUTH, with an office at 11 Lincoln Street, Plymouth, Plymouth County, Massachusetts, 02360, hereinafter called the "Owner", and (name, street address and mailing address of contractor) hereinafter called the "Contractor".

1. GENERAL

WITNESSETH, that the Owner and the Contractor, for the consideration hereafter named, agree as follows:

Article 1. SCOPE OF WORK: The Contractor shall perform all the Work required by the Contract Documents for Pine Hills Communications Tower and Compound as described in the Contract Documents.

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 it shall bring the work to substantial completion within 90 days of commencement and final completion within 120 days of commencement..

Article 3. THE CONTRACT SUM: The Owner shall pay the Contractor in current funds for the performance of the Work, subject to additions and deductions by Change Order, the Contract Sum of \_\_\_\_\_.

Article 4. THE CONTRACT DOCUMENTS (or "CONTRACT"): 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 Advertisement, Bidding Documents, General Information, Invitation for Bids, Contract Forms, Conditions of the Contract, and Specifications as enumerated in the Table of Contents; the Drawings as enumerated in the List of Contract Drawings; Addenda; and Modifications/Change Orders issued after execution of the Contract.

By signing this Contract, the Contractor certifies under the penalties of perjury that he/she has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting of child support.

2. PRE-CONSTRUCTION CONFERENCE

Prior to the start of construction, the Contractor, all subcontractors, the project manager, the engineer, 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, and will inform the Contractor, in detail, of the obligations imposed on him and his subcontractors by the Executive Orders concerning Equal Employment

opportunity and Davis-Bacon Act requirements, provided that nothing said in or omitted from such pre-construction conference shall relieve Contractor of its obligations under the Contract Documents. The date, time, and place of the conference will be furnished to the Contractor by the project manager.

#### GENERAL CONDITIONS

#### 3. Funding Source

This project is funded through a Town of Plymouth appropriation.

#### 4. Contract Plans and Specifications

All plans, specifications 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. The plans and specifications are complimentary, and what is required by one shall be deemed as if required by all.

#### 5. Additional Instructions and Detail Drawings

The Contractor may be furnished additional written instructions and detail drawings as necessary to carry out the work included in the contract. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions. The Contractor and the Director of Public Works 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 Director of Public Works 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 equipments, 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.

#### 6. Shop or Setting Drawings

The Contractor shall submit promptly to the Director of Public Works a minimum of four (4) copies of each shop or setting drawing prepared in accordance with the schedule predetermined as aforesaid. After examination of such drawings by the Director of Public Works or his designee and the return thereof, the Contractor shall make such corrections to the drawings as have been indicated, if any, and shall furnish the Director of Public Works or his designee with two corrected copies. If requested by the Director of Public Works or his designee, the Contractor must furnish additional copies. Regardless of corrections made in or approval given to such drawings by the Director of Public Works, the Contractor will nevertheless be responsible for the accuracy

of such drawings and for their conformity to the plans and specifications, unless he notifies the Director of Public Works in writing and conspicuously on the face of the shop drawing of any deviations at the time he furnishes such drawings, and the Director has expressly and separately approved such deviation by noting its approval on the drawing.

7. 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.

8. Contractor's Title to Materials

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 he has good title to all materials and supplies used by him in the work, free from all liens, claims or encumbrances.

9. Title to Work

The title to all work completed and in the course of construction, and of all material incorporated into the work, and all material not incorporated into the work but for which any payment has been made by Owner shall be in the Owner's name.

10. Inspection and Testing of Materials

- (a) All materials and equipment used in the construction of the project shall be subject to inspection and testing in accordance with accepted standards.
- (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.

11. Express Warranty

The Contractor guarantees to Owner that all materials incorporated into the work will be new and of recent manufacture unless otherwise expressly specified or agreed in writing. Contractor also guarantees that all work will be done in a workmanlike manner, free from defects in material and workmanship, and in strict conformance with all requirements and specifications in the Contract.

12. Maintenance and Guarantee

The Contractor hereby guarantees that the entire work constructed by him under the contract will meet fully all requirements thereof as to quality of workmanship and of materials furnished by him. The Contractor hereby agrees, in addition to any other rights and remedies available to the Town, to make at his own expense any repairs or replacements made necessary by defects in materials or workmanship supplied to him 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 indemnify and hold harmless the Owner from claims of any kind arising from damage due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written orders for 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. The foregoing is not a limitation of, but is in addition to, any other rights and remedies available to the Owner, and nothing herein shall reduce or limit any applicable statutory limitations periods for suits by the Owner.

13. "Or Equal" Clause

Whenever a materials, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturers' or vendors' trade names, catalogue numbers, etc., it is intended merely to establish a standard; and, any materials, article or equipment of other manufacturers and vendors which 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 Director of Public Works, at least equal in quality, durability, appearance, strength and design, will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. It shall not be purchased or installed by the Contractor without the Director's written approval.

14. Survey's Permits and Regulations

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 his contract.

The Contractor shall strictly comply with 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.

15. Contractor's Obligations

The Contractor shall and will, in a good and 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 and/or proper to perform and complete all the work required by and reasonably inferable from this Contract, within the time herein specified, in strict accordance with the provisions of this Contract and said specifications and in accordance with the plans and drawings covered by this Contract any and all supplemental plans and drawings, and in accordance with the directions of the Director of Public Works as given from time to time during the progress of the work. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required.

The Contractor shall observe, strictly 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 Director of Public Works and the Owner.

16. Weather Conditions

In the event of temporary suspension of work, or during inclement weather, or whenever the Director of Public Works shall direct, the Contractor will, and will cause his Subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Director of Public Works or his designee, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors so to protect his work, such materials shall be removed and replaced at the expense of the Contractor.

17. Protection of Work and Property-Emergency

The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with the Contract. He shall at all times safely guard and protect his own work, and that of adjacent property from damage. The Contractor shall replace or make good any such damage, loss or injury to the extent caused, in whole or in part, directly or indirectly, by Contractor, its employees, subcontractors or suppliers or any person for whom Contractor is responsible.

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 Director of Public Works, in a diligent manner to address such emergency. He shall notify the Director of Public Works immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be submitted for consideration to the Director of Public Works in writing within 21 days of the onset of the emergency.

18. Inspection

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 at any reasonable time with or without notice.

19. Reports, Records and Data

The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls reports, estimates, records and other data as the Owner may request concerning work performed or to be performed under the Contract.

20. Superintendence by Contractor

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 Director of Public Works, 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, provided that any approval or lack of approval of the Director of any such representative shall not relieve Contractor of its obligations hereunder.

21. Changes in Work

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 or more or a combination of the following methods, at the sole election of Owner:

- (a) *Unit bid prices previously approved.*
- (b) *An agreed lump sum.*
- (c) *The actual cost of:*
  - (1) *Labor, including foremen.*
  - (2) *Materials entering permanently into the work.*
  - (3) *The ownership or rental cost of construction plant and equipment during the time of use on the extra work.*
  - (4) *Power and consumable supplies for the operation of power equipment.*
  - (5) *Insurance.*
  - (6) *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.

22. Time for Completion and Liquidated Damages

It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning and the time for substantial 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 the date specified in a "Notice to Proceed" to be issued by the Owner.

The Contractor agrees that said work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will ensure substantial completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for substantial completion of the work described herein is a reasonable time for the substantial 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 substantially complete the work within the time herein specified, or any property extension thereof granted by the Owner, then the Contractor does hereby agree, as a partial consideration for the awarding of this Contract, to pay to the Owner the amount specified below, not as a penalty, but as liquidated damages for each and every calendar day the Contractor shall be in default after the time stipulated in the Contract for substantially 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 the 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.

Notwithstanding the foregoing, and notwithstanding anything to the contrary in the Contract Documents, the Owner may, at its sole election and in its sole discretion, recover its actual damages in lieu of liquidated damages for any delay caused in whole or in part, directly or indirectly, by Contractor, its employees, subcontractors, suppliers or any person for whom Contract is responsible.

In the event Contractor is delayed through no fault of its own, it may make claim for an extension of time (only) as follows: The Contractor shall within ten (10) days from the earlier of the date of the event giving rise to its claim, the date on which the delay commenced, or the date on which Contractor knew or should have known of its claim, notify the Owner in writing of the existence

and causes of the delay, and request an extension of time to complete the work and include therein the length of extension requested, and shall provide such other information as the Owner may reasonably request. Failure to comply strictly with the above notice procedure shall result in the waiver of any such claim. In addition, Contractor agrees that in the event it initiates any proceeding against Owner on account of any delays or the assessment of liquidated damages and Contractor is found to have failed to strictly comply with the aforesaid notice process, Contractor shall pay Owner's attorneys' and expert witness fees incurred in defending any such proceeding. Notwithstanding the foregoing, any decision of the Owner or its designee on any claim of Contractor for an extension of time to complete the work shall be final and binding on the Contractor under G.L. c. 30, § 39J.

The amount of liquidated damages for this project shall be the sum of amount for each consecutive calendar day.

23. 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 Director of Public Works or his 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 his approval they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Contractor at his own expense. Rejected materials shall immediately be removed from the site. If, in the opinion of the Director of Public Works, 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 judgment of the Director shall be equitable.

24. Subsurface Conditions Found Different

Should the Contractor encounter subsurface and/or latent physical conditions at the site materially differing from those shown on the plans or indicated in the specifications for which an equitable adjustment is required under G.L. c. 30, § 39N, he shall immediately upon discovering such conditions and before disturbing same give written notice to the Director of Public Works of such conditions. The Director of Public Works will thereupon promptly investigate the conditions, and if he finds that they materially differ from those shown on the plans or indicated in the specifications and an equitable adjustment is required by G.L. c. 30, § 39N, an appropriate change order shall be prepared for such adjustment in accordance with Paragraph 21, above, including any credits to Owner and/or additional compensation to Contractor, as the case may be. Notwithstanding the foregoing, Contractor will be eligible for an equitable adjustment on account of said conditions if and only if such adjustment is required by G.L. c. 30, § 39N.

Failure to comply with the notice procedure stated above shall result in the waiver of Contractor's claim. Moreover, any decision of the Owner or its designee on any claim of the Contractor under this paragraph shall be final and binding on the Contractor under G.L. c. 30, § 39J. Contractor agrees that in the event it initiates any proceeding against Owner on account of any claim for equitable adjustment due to subsurface or latent physical conditions for which Contractor had failed to strictly comply with the aforesaid notice process, Contractor shall pay Owner's attorneys' and expert witness fees incurred in defending any such proceeding.

25. Right of the Owner to Terminate Contract

The Owner may terminate this Contract by providing the Contractor with ten (10) days written notice for the reasons stated below:

- (a) Violation of any of the provisions of this Contract by the Contractor or any of his/her subcontractors, or of any federal, state or local law or regulation applicable to the project work.
- (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 its obligations under this Contract, including timely prosecution and completion of the work unless an extension of time to complete the work has been granted by the Owner via a signed Change Order.

The Owner shall not be required to give notice of termination to Contractor's surety, if any, provided that nothing herein shall preclude Owner from making claim on any performance bond issued by any surety.

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 telegram, mailgram, hand-carried letter, or other appropriate written means.

Owner may also terminate the Contractor for its convenience, including for no reason, upon 30 days' written notice. In the event of any such termination, Contractor shall be paid for all work satisfactorily performed to the date of termination. Contractor shall not be entitled to any lost profits or other damages.

26. Payments to Contractor

- (a) Provided an agreed upon form of application for payment is received by the fifth day of the month, not later than the twentieth (20<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, less five percent (5%) of the amount of each estimate until final completion and acceptance of all work covered by this Contract, and the value of any claims of the Owner against Contractor.

- (b) In preparing estimates, the material delivered and properly stored on the site may be taken into consideration if and to the extent approved by Owner.
- (c) Notwithstanding any certification or lack of certification by the Owner or its agents or representatives, the Owner may withhold the value of its claims against the Contractor from amounts otherwise payable to Contractor.

#### 27. Indemnification

The Contractor shall comply with the requirements of all applicable laws, rules and regulations in connection with the services 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 obligation of the Contractor is in addition to, and shall not be construed as a limitation of, the Contractor's liability under any other provision of the Contract or law and any other rights and remedies available to the Owner.

#### 28. 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 all liability to the Contractor. No payment, however, final or otherwise, shall operate to release the Contractor or his Sureties from any obligations under the Contract or the performance and payment bond.

#### 29. Insurance

The Contractor shall not commence work under this Contract until he has obtained all the insurance required in the Bidding Document and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on this subcontract until the insurance required of the subcontractor has been so obtained and approved.

#### 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, with Owner's consent, all or any part of any monies due or to become due under this Contract, the assignee shall be bound

by the terms of the Contract Documents and its right, if any, in and to any monies due or to become due to the Contractor shall be subject to, among other things, prior claims of all the Owner, and 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 Director of Public Works

Where ever the Contract Documents there is a reference to the Director of Public Works, such reference shall be to the Director or his designee, which may be an independent third-party engineer retained by Owner. The Director of Public Works or his designee shall give all orders and directions contemplated under this Contract and specifications relative to the execution of the work.

The Director or his 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 the interpretation of the Contract Documents, said work and the construction thereof. The Director's estimates and decisions shall be final and conclusive under G.L. c. 30, § 39J. In case any question shall arise between the parties hereto relative to said Contract and specifications, the determination or decision of the Director 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 Director or his 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, which decision shall be final and binding as aforesaid.

32. Notice and Service Thereof

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 or by other method of delivery for which a delivery receipt is generated (including facsimile or e-mail, if a deliver receipt is generated), to the said Contractor at his last given address, or delivered in person to the said Contractor or his authorized representative on the work.

33. Subcontract

The Contractor will insert in any subcontracts provisions making the subcontractors responsible to the Contractor in the same manner as Contractor is responsible to the Owner under the Contract Documents.

34. Suspension of or Delays to the Work: No Damages for Delay

Notwithstanding anything to the contrary in the Contract Documents, if the Contractor or the work is delayed through no fault of Contractor for any reason, including, but not limited to, acts of the Owner, Contractor's sole remedy, if any, shall be an extension of time to complete the work, provided Contractor makes

a claim for such an extension in strict accordance with the process set forth in paragraph 22, above. Under no circumstances shall the Contractor be entitled to make or assert or recover for any claim for damages by reason of any such delay, whether such a claim is characterized as one for delay, having to perform out-of-sequence work, or loss of production, or otherwise.

35. 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 and/or inspection to the Owner or its designee or any authorized representative, and will be retained by Contractor for three years after final completion of all work.

36. Non-Discrimination

The Contractor shall not discriminate in violation of any applicable federal, state and local law or regulation, including the following: Title VI of the Civil Rights Act of 1964 (Public Law 88-352), and the regulations issued pursuant thereto by HUD (24 CFR Part 1); Title VIII of the Civil Rights Act of 1968 (Public Law 90-284), as amended; Section 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 U.S.C. 6101 et seq.); Section 402 of the Veterans of the Vietnam Era Act. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794); Massachusetts General Laws Chapter 151B, section 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, age, handicap, or national origin. Noncompliance by the Contractor with the non-discrimination clauses of this Contract shall constitute a material breach of the Contract.

37. Termination of Contract

In addition to any other rights of Owner to suspend or terminate the Contract: The Owner may suspend or terminate this Contract by providing the recipient with ten (10) days written notice for failure of the Contractor, for any reason, to fulfill in a timely and proper manner its obligations under this Contract including compliance with applicable federal, state or local laws or regulations.

38. Schedule of Salaries and Wages

The minimum wage rates and health and welfare fund contributions applicable to this Contract as determined by the Director, Division of Occupational Safety, Commonwealth of Massachusetts under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 and 27D, inclusive as amended are attached hereto and incorporated herein. The greater of Federal wage rates or State prevailing wage rates, when both are applicable, shall be paid under this contract and reported as required.

39. Labor Provisions

- (a) In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers by the Contractor and Subcontractors, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment, who are male veterans as defined in clause forty-third of G.L. c. 4, s. 7 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 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 G.L. c. 149, s. 26.
- (b) The minimum rates of wages to be paid mechanics and apprentices, chauffeurs, teamsters and laborers shall be set forth in the schedule of rates of wages determined by the Commissioner of Labor and Industry.
- (c) In accordance with G.L. c. 149, s 34A, the Contractor shall, before commencing performance of the contract, provide by insurance for the payment of compensation and the furnishing of other benefits under chapter one hundred and fifty-two 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 G.L. c. 149, s. 34A which provides that whoever violates any of its provisions shall be punished by a fine of not more than one hundred dollars or by imprisonment for six 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 years from the date of conviction of said violation.
- (d) The Contractor shall pay to any reserve police officer employed by him prevailing rate of wage paid to regular police

officers, as required by G.L. c. 149, s. 34B.

40. Environmental Requirements

The Contractor shall comply, where applicable, with: Federal Executive Order 1199218, Floodplain Management, May 24, 1977 (42 FR 26951 et. seq.) particularly section 2 (a); the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et. seq.), as amended, particularly section 307 (c) and (d) (16 U.S.C. 1456 (c) and (d)); the Safe Water Drinking Act of 1974 (42 U.S.C. 201, 300 (f) et seq., and 21 U.S.C. 349), as amended; the Endangered Species Act of 1973 (16 U.S.C. 1531 et. seq.) as amended, particularly section 7 (16 U.S.C. 1536; the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et. seq.) as amended, particularly section 7 (b) and (c) (16 U.S.C. 1278 (b) and (c)); the Clean Air Act (42 U.S.C. 7401 et seq.) as amended, particularly section 176 (c) and (d) (42 U.S.C. 7506 (c) and (d)); HUD Environmental Criteria and Standards (44 FR 40860-40866, July 12, 1979); "The American Standard Specification for Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped," Number A-117.4-R 1971, subject to the exceptions contained in 41 CFR 101-19-604; and any corresponding provisions of State and local laws and regulations.

The Contractor shall also comply, where applicable, with the National Environmental Policy Act of 1969, Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, Flood Disaster Protection Act of 1973, National Flood Insurance Act of 1968, and Protection of Wetlands Laws.

41. Historic Preservation

The Contractor shall, in the performance of any environmental assessments under the National Policy Act, and the Massachusetts Environmental Policy Act, comply with section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470), Federal Executive Order 11593, and the Preservation of Archaeological and Historic Data Act of 1966 (17 U.S.C. 469 a-1 et seq.), by (a) consulting with the State Historic Preservation Officer to identify properties listed in or eligible for inclusion in the National Register of Historic Places that are subject to adverse effect (see 36 CFR Part 800.8) by the proposed activity, and (b) complying with all requirements established by HUD to avoid or mitigate adverse effects upon such properties.

42. Interest of Contractor and Employees

The Contractor covenants that he presently has no interest and shall not acquire interest, direct or indirect, that violates or will with the passage of time result in a violation of G.L. c. 268A. The Contractor further agrees that in the performance of this contract, no person having any such interest in violation of said law shall be employed.

43. Severability

If any provision of this Agreement is held invalid, the remainder of the Agreement shall not be affected thereby, and all other parts of this Agreement shall nevertheless be in full force and

effect.

44. Claims for Additional Compensation

In the event the Contractor believes it is due additional compensation for extra work or otherwise, except for claims on account of subsurface and latent physical conditions, which claims shall be made as stated above, the Contractor shall, within ten (10) days from the earlier of the date of the event giving rise to its claim, the date on which the delay commenced, or the date on which Contractor knew or should have known of its claim, submit its claim in writing to the Owner, describing in reasonable detail the basis of the claim, the event giving rise to the claim, and an itemization of the additional compensation requested. Notwithstanding the foregoing, if such claim is for extra work, such claim must be submitted before the alleged extra work is performed.

Failure to comply strictly with the above notice procedure shall result in the waiver of any such claim. In addition, Contractor agrees that in the event it initiates any proceeding against Owner on account of any claims for additional compensation and Contractor is found to have failed to strictly comply with the aforesaid notice process, Contractor shall pay Owner's attorneys' and expert witness fees incurred in defending any such proceeding. Notwithstanding the foregoing, any decision of the Owner or its designee on any claim of Contractor for additional compensation shall be final and binding on the Contractor under G.L. c. 30, § 39J.

45. In the event of any conflict or inconsistency between and among the provisions of the Contract Documents, the provision resulting in the greatest quantity and better quality of goods and services or, if the foregoing does not resolve the conflict or inconsistency, the provision resulting in less cost or risk to the Owner, as reasonably determined by the Owner, shall control. Any decision of the Owner or its designee on such resolution shall be final and binding on the Contractor under G.L. c. 30, § 39J.

THE PAGE HAS BEEN INTENTIONALLY LEFT BLANK

### 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.

\_\_\_\_\_  
Authorized Representative Signature  
(Include Evidence of Authorization)

\_\_\_\_\_  
Address

THE PAGE HAS BEEN INTENTIONALLY LEFT BLANK

**BID FORM**

---

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 the attached forms to:

Town of Plymouth  
ATTN: Procurement Division  
Town Office Building  
11 Lincoln Street  
Plymouth, MA 02360

**Bids must be received by 11:00 a.m., Friday, August 28, 2015.**

Postmarks will not be considered. All bids will be publicly opened and read at the above address, date and time. Prices are to include any delivery charges unless otherwise specified. All offers are subject to Bid 21536 Documents.

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 the herein described work for the prices offered opposite each item and that said prices will be good for the period of one year.

The undersigned bidder hereby certifies:

Bidder has visited the site(s), carefully read and examined the drawings and project manual herein referred to and knows and understands the terms and provisions therein

Bidder agrees that if this bid is accepted he/she will contract with the Owner, as provided for in the bid/contract documents, and that he/she will perform all the work and furnish all bonds, 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 Town as therein set forth and that he/she will take in full payment therefor, the lump sum applicable to the project as offered below.

The 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 Division of Occupational Safety. The undersigned bidder agrees, in addition to any other rights and remedies available to the Awarding Authority, to indemnify the Awarding Authority for, from and against any loss, expense, damages, actions 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 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.

No person in the employ of the Town of Plymouth has any pecuniary interest in this proposal or in the contract for the work, which is proposed.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with 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 States Occupational Safety and Health Administration that is at least 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 he will comply fully with all laws and regulations applicable to awards made subject to G.L. c.149, §44A.

THE UNDERSIGNED BIDDER HEREBY CERTIFIES UNDER THE PAINS AND PENALTIES OF PERJURY THE FOLLOWING:

This bid in all respects is bonafide, 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.

It has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support in accordance with MGL Chapter 62C, Section 49A.

It is not presently debarred from doing public construction work in the commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

All structural works should be priced installed with appropriate finishing works. Shop drawings may be required for any additional design work.

CONSTRUCTION OF PINE HILLS COMMUNICATION TOWER AND COMPOUND, AS SPECIFIED. PRICES SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE PARTICULAR ITEM AS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ITEM #	DESCRIPTION	EST. QUAN.	UNIT	AMOUNT
A	Site Work	1	LS	
B	150' Communications Tower & Foundation	1	LS	
C	Generator Set & Concrete Pad	1	LS	
D	Owner Furnished Equipment Shelter:			
	Foundation/Pad & Placement	1	LS	
E	Site Electrical & Grounding Work	1	LS	
F	Security Fencing & Gates	1	LS	
<b>TOTAL LUMP SUM BID PRICE (ITEMS A-F):</b>				

**TOTAL LUMP SUM BID PRICE (IN WORDS):**

---



---

**NOTES:**

- A. All prices, except item totals, shall be stated in both 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.
- B. 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.
- C. 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 DOCUMENT 00855, SPECIAL CONDITIONS, COMMONWEALTH OF MASSACHUSETTS. Unbalanced bid items will specifically be subject to review and to this potential withholding from periodic payment applications.

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF ADDENDA # \_\_\_\_\_ \*

\*To be filled in by bidder if addenda are issued.

PLEASE NOTE ANY EXCEPTIONS ON SEPARATE CONTRACTOR LETTERHEAD.

BIDDER \_\_\_\_\_

\_\_\_\_\_  
AUTHORIZED SIGNATURE

COUNTY \_\_\_\_\_

\_\_\_\_\_  
Printed Name and Title

STATE OF INCORPORATION \_\_\_\_\_

PHONE \_\_\_\_\_

\_\_\_\_\_  
Date Offered

FAX \_\_\_\_\_

E-MAIL \_\_\_\_\_

TAX I.D. NUMBER \_\_\_\_\_

**REFERENCES OF BIDDER**

By signing this page, the bidder certifies that he/she meets the minimum qualifications specified in GENERAL INFORMATION.

Please also provide the requested reference information specified in GENERAL INFORMATION.

Signed:

\_\_\_\_\_  
Name of Person Authorized to Sign for the Bidder

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**DELEGATION OF AUTHORITY**

At a meeting of the Board of Directors of the \_\_\_\_\_  
(Name of Corporation)

\_\_\_\_\_ duly called and held on \_\_\_\_\_  
(Date)

at which a quorum was present, and acting throughout, the following vote

was duly adopted: VOTED: That \_\_\_\_\_  
(Name of Individual)

the \_\_\_\_\_ of the Corporation, hereby is authorized  
(Title)

to affix the Corporate Seal, sign and deliver in the name and on behalf of the Corporation, bids, proposals, contracts, bills of sale, conditional sale agreements, chattel mortgages, leases, bonds, applications, affidavits, certificates, and any other similar documents required in connection with the sale of the Corporation's products to any purchaser, including assignments and satisfactions of any such documents.

Any and all applications, affidavits, statements, certificates, and similar documents required by law in connection with the licensing of the Corporation or its representatives for the sale, distribution, and servicing of its commercial products.

The authority is hereby delegated and shall be exercised by the aforesaid person in connection with the duties as

\_\_\_\_\_ of \_\_\_\_\_  
(Title) (Name of Corporation)

and not otherwise.

ATTEST: \_\_\_\_\_ DATE: \_\_\_\_\_

**NOTE:** This form must be completed if the contractor is a corporation.

**ATTACHMENT 1**

**COMMONWEALTH OF MASSACHUSETTS PREVAILING WAGE RATES**

**The Massachusetts Prevailing Wage Law**  
**M.G.L. ch. 149, §§ 26 - 27**

**NOTICE TO AWARDING AUTHORITIES**

- The enclosed wage schedule applies only to the specific project listed at the top and will remain in effect for the duration of the project.
- You should request an updated wage schedule from the Division of Occupational Safety if you have not opened bids or selected a contractor within 90 days of the date of issuance of the enclosed wage schedule.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project for which it has been issued.
- Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project.

**NOTICE TO CONTRACTORS**

- The enclosed wage schedule must be posted in a conspicuous place at the work site during the life of the project.
- The wages listed on the enclosed wage schedule must be paid to employees on public works projects regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- The enclosed wage schedule applies to all phases of the project including the final clean-up. Contractors whose only role is to perform final clean-up must pay their employees according to this wage schedule.
- All apprentices must be registered with the Massachusetts Division of Apprentice Training in order to be paid at the reduced apprentice rates. If a worker is not registered with the Division of Apprentice Training, they must be paid the "total rate" listed on the wage schedule regardless of experience or skill level. For further information, please call (617) 727-3486 or write to the Division of Apprentice Training, 399 Washington Street, 4<sup>th</sup> Floor, Boston, MA 02108

## WEEKLY PAYROLL RECORDS REPORT & STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. For every week in which an apprentice is employed, a photocopy of the apprentice's identification card must be attached to the payroll report. Once collected, the awarding authority is also required to preserve those records for three years.

In addition, each such contractor, subcontractor, or public body shall furnish to the awarding authority directly, within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

<b>STATEMENT OF COMPLIANCE</b>	
_____, 20____	
I, _____,	_____
(Name of signatory party)	(Title)
do hereby state:	
That I pay or supervise the payment of the persons employed by	
_____	_____
(Contractor, subcontractor or public body)	(Building or project)
and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.	
Signature _____	
Title _____	

**MASSACHUSETTS WEEKLY CERTIFIED PAYROLL REPORT FORM**



Employee Name & Complete Address	Employee is OSHA 10 Certified (?)	Work Classification:	Appr. Rate (%)	Worked							Project Hours (A)	Hourly Base Wage (B)	(B+C+D+E)	(A x F)	Check No. (H)	
				Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.						Total Hourly Prev. Wage (F)
	<input type="checkbox"/>															
	<input type="checkbox"/>															
	<input type="checkbox"/>															
	<input type="checkbox"/>															
	<input type="checkbox"/>															
	<input type="checkbox"/>															
	<input type="checkbox"/>															

**NOTE:** Pursuant to MGL Ch. 149 s.27B, every contractor and subcontractor is required to submit a "true and accurate" copy of their weekly payroll records directly to the awarding authority. Failure to comply may result in the commencement of a criminal action or the issuance of a civil citation.



**THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS**

**Prevailing Wage Rates**

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

CHARLES D. BAKER  
Governor

RONALD L. WALKER, II  
Secretary

KARYNE E. POLITO  
Lt. Governor

WILLIAM D. MCKINNEY  
Director

**Awarding Authority:** Town of Plymouth  
**Contract Number:** 21536 **City/Town:** PLYMOUTH  
**Description of Work:** Labor, material, equipment, services, testing, and commissioning for the construction of 150' communication tower and appurtenant work.  
**Job Location:** Old Sandwich Road

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- 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 from the Department of Labor Standards ("DLS") 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 any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentice must keep his/her apprentice identification card on his/her person 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. **If an apprentice rate is not listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAS, the apprentice must be paid the journeyworker's rate for the trade.**
- 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. Awarding authorities are required to request these updates 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, 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. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F "rental of equipment" contracts.
- Every contractor or subcontractor which performs construction work on the project is required to 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. A sample of a payroll reporting form may be obtained at <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.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- 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.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Construction</b>						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2015	\$31.65	\$10.41	\$9.33	\$0.00	\$51.39
	12/01/2015	\$31.65	\$10.41	\$10.08	\$0.00	\$52.14
	06/01/2016	\$32.15	\$10.41	\$10.08	\$0.00	\$52.64
	08/01/2016	\$32.15	\$10.91	\$10.08	\$0.00	\$53.14
	12/01/2016	\$32.15	\$10.91	\$10.89	\$0.00	\$53.95
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2015	\$31.72	\$10.41	\$9.33	\$0.00	\$51.46
	12/01/2015	\$31.72	\$10.41	\$10.08	\$0.00	\$52.21
	06/01/2016	\$32.22	\$10.41	\$10.08	\$0.00	\$52.71
	08/01/2016	\$32.22	\$10.91	\$10.08	\$0.00	\$53.21
	12/01/2016	\$32.22	\$10.91	\$10.89	\$0.00	\$54.02
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2015	\$31.84	\$10.41	\$9.33	\$0.00	\$51.58
	12/01/2015	\$31.84	\$10.41	\$10.08	\$0.00	\$52.33
	06/01/2016	\$32.34	\$10.41	\$10.08	\$0.00	\$52.83
	08/01/2016	\$32.34	\$10.91	\$10.08	\$0.00	\$53.33
	12/01/2016	\$32.34	\$10.91	\$10.89	\$0.00	\$54.14
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2015	\$88.29	\$9.80	\$19.23	\$0.00	\$117.32
AJR TRACK OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	12/01/2015	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	06/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50
	12/01/2016	\$33.65	\$7.30	\$12.30	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECIL EQUIPT. <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	06/01/2015	\$33.43	\$10.40	\$5.95	\$0.00	\$49.78
	12/01/2015	\$34.38	\$10.40	\$5.95	\$0.00	\$50.73
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$42.83	\$10.00	\$14.55	\$0.00	\$67.38
	12/01/2015	\$44.08	\$10.00	\$14.55	\$0.00	\$68.63
	06/01/2016	\$44.83	\$10.00	\$14.55	\$0.00	\$69.38
	12/01/2016	\$46.08	\$10.00	\$14.55	\$0.00	\$70.63
	06/01/2017	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
	12/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$42.83	\$10.00	\$14.55	\$0.00	\$67.38
	12/01/2015	\$44.08	\$10.00	\$14.55	\$0.00	\$68.63
	06/01/2016	\$44.83	\$10.00	\$14.55	\$0.00	\$69.38
	12/01/2016	\$46.08	\$10.00	\$14.55	\$0.00	\$70.63
	06/01/2017	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
	12/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	12/01/2015	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	06/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50
	12/01/2016	\$33.65	\$7.30	\$12.30	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2015	\$40.32	\$6.97	\$16.21	\$0.00	\$63.50
	01/01/2016	\$41.62	\$6.97	\$16.21	\$0.00	\$64.80
	01/01/2017	\$42.92	\$6.97	\$16.21	\$0.00	\$66.10

**Apprentice - BOILERMAKER - Local 29**

**Effective Date - 01/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$26.21	\$6.97	\$10.54	\$0.00	\$43.72
2	65	\$26.21	\$6.97	\$10.54	\$0.00	\$43.72
3	70	\$28.22	\$6.97	\$11.35	\$0.00	\$46.54
4	75	\$30.24	\$6.97	\$12.16	\$0.00	\$49.37
5	80	\$32.26	\$6.97	\$12.97	\$0.00	\$52.20
6	85	\$34.27	\$6.97	\$13.78	\$0.00	\$55.02
7	90	\$36.29	\$6.97	\$14.59	\$0.00	\$57.85
8	95	\$38.30	\$6.97	\$15.40	\$0.00	\$60.67

**Effective Date - 01/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$27.05	\$6.97	\$10.54	\$0.00	\$44.56
2	65	\$27.05	\$6.97	\$10.54	\$0.00	\$44.56
3	70	\$29.13	\$6.97	\$11.35	\$0.00	\$47.45
4	75	\$31.22	\$6.97	\$12.16	\$0.00	\$50.35
5	80	\$33.30	\$6.97	\$12.97	\$0.00	\$53.24
6	85	\$35.38	\$6.97	\$13.78	\$0.00	\$56.13
7	90	\$37.46	\$6.97	\$14.59	\$0.00	\$59.02
8	95	\$39.54	\$6.97	\$15.40	\$0.00	\$61.91

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (QUINCY)</i>	08/01/2015	\$49.86	\$10.18	\$18.57	\$0.00	\$78.61
	02/01/2016	\$50.43	\$10.18	\$18.57	\$0.00	\$79.18
	08/01/2016	\$51.33	\$10.18	\$18.65	\$0.00	\$80.16
	02/01/2017	\$51.90	\$10.18	\$18.65	\$0.00	\$80.73

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Quincy**

Effective Date - 08/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.93	\$10.18	\$18.57	\$0.00	\$53.68
2	60	\$29.92	\$10.18	\$18.57	\$0.00	\$58.67
3	70	\$34.90	\$10.18	\$18.57	\$0.00	\$63.65
4	80	\$39.89	\$10.18	\$18.57	\$0.00	\$68.64
5	90	\$44.87	\$10.18	\$18.57	\$0.00	\$73.62

Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.22	\$10.18	\$18.57	\$0.00	\$53.97
2	60	\$30.26	\$10.18	\$18.57	\$0.00	\$59.01
3	70	\$35.30	\$10.18	\$18.57	\$0.00	\$64.05
4	80	\$40.34	\$10.18	\$18.57	\$0.00	\$69.09
5	90	\$45.39	\$10.18	\$18.57	\$0.00	\$74.14

**Notes:**

**Apprentice to Journeyworker Ratio: 1:5**

BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN LABORERS - FOUNDATION AND MARINE	06/01/2015	\$36.20	\$7.30	\$13.40	\$0.00	\$56.90
	12/01/2015	\$36.95	\$7.30	\$13.40	\$0.00	\$57.65
	06/01/2016	\$37.70	\$7.30	\$13.40	\$0.00	\$58.40
	12/01/2016	\$38.70	\$7.30	\$13.40	\$0.00	\$59.40

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER LABORERS - FOUNDATION AND MARINE	06/01/2015	\$35.05	\$7.30	\$13.40	\$0.00	\$55.75
	12/01/2015	\$35.80	\$7.30	\$13.40	\$0.00	\$56.50
	06/01/2016	\$36.55	\$7.30	\$13.40	\$0.00	\$57.25
	12/01/2016	\$37.55	\$7.30	\$13.40	\$0.00	\$58.25

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING TOP MAN LABORERS - FOUNDATION AND MARINE	06/01/2015	\$35.05	\$7.30	\$13.40	\$0.00	\$55.75
	12/01/2015	\$35.80	\$7.30	\$13.40	\$0.00	\$56.50
	06/01/2016	\$36.55	\$7.30	\$13.40	\$0.00	\$57.25
	12/01/2016	\$37.55	\$7.30	\$13.40	\$0.00	\$58.25

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2015	\$35.75	\$9.80	\$16.48	\$0.00	\$62.03

**Apprentice - CARPENTER - Zone 2 Eastern MA**

Effective Date - 03/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.88	\$9.80	\$1.63	\$0.00	\$29.31
2	60	\$21.45	\$9.80	\$1.63	\$0.00	\$32.88
3	70	\$25.03	\$9.80	\$11.59	\$0.00	\$46.42
4	75	\$26.81	\$9.80	\$11.59	\$0.00	\$48.20
5	80	\$28.60	\$9.80	\$13.22	\$0.00	\$51.62
6	80	\$28.60	\$9.80	\$13.22	\$0.00	\$51.62
7	90	\$32.18	\$9.80	\$14.85	\$0.00	\$56.83
8	90	\$32.18	\$9.80	\$14.85	\$0.00	\$56.83

**Notes:**

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING <i>BRICKLAYERS LOCAL 3 (QUINCY)</i>	07/01/2015	\$45.82	\$10.90	\$18.71	\$1.30	\$76.73
	01/01/2016	\$46.44	\$10.90	\$18.71	\$1.30	\$77.35

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Quincy)**

Effective Date - 07/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.91	\$10.90	\$12.21	\$0.00	\$46.02
2	60	\$27.49	\$10.90	\$13.71	\$1.30	\$53.40
3	65	\$29.78	\$10.90	\$14.71	\$1.30	\$56.69
4	70	\$32.07	\$10.90	\$15.71	\$1.30	\$59.98
5	75	\$34.37	\$10.90	\$16.71	\$1.30	\$63.28
6	80	\$36.66	\$10.90	\$17.71	\$1.30	\$66.57
7	90	\$41.24	\$10.90	\$18.71	\$1.30	\$72.15

Effective Date - 01/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.22	\$10.90	\$12.21	\$0.00	\$46.33
2	60	\$27.86	\$10.90	\$13.71	\$1.30	\$53.77
3	65	\$30.19	\$10.90	\$14.71	\$1.30	\$57.10
4	70	\$32.51	\$10.90	\$15.71	\$1.30	\$60.42
5	75	\$34.83	\$10.90	\$16.71	\$1.30	\$63.74
6	80	\$37.15	\$10.90	\$17.71	\$1.30	\$67.06
7	90	\$41.80	\$10.90	\$18.71	\$1.30	\$72.71

**Notes:**

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

**Apprentice to Journeyworker Ratio:1:3**

CHAIN SAW OPERATOR	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
LABORERS - ZONE 2	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	06/01/2015	\$43.83	\$10.00	\$14.55	\$0.00	\$68.38
OPERATING ENGINEERS LOCAL 4	12/01/2015	\$45.08	\$10.00	\$14.55	\$0.00	\$69.63
	06/01/2016	\$45.83	\$10.00	\$14.55	\$0.00	\$70.38
	12/01/2016	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
	06/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63
	12/01/2017	\$49.08	\$10.00	\$14.55	\$0.00	\$73.63

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

COMPRESSOR OPERATOR	06/01/2015	\$29.61	\$10.00	\$14.55	\$0.00	\$54.16
OPERATING ENGINEERS LOCAL 4	12/01/2015	\$30.48	\$10.00	\$14.55	\$0.00	\$55.03
	06/01/2016	\$31.00	\$10.00	\$14.55	\$0.00	\$55.55
	12/01/2016	\$31.87	\$10.00	\$14.55	\$0.00	\$56.42
	06/01/2017	\$32.56	\$10.00	\$14.55	\$0.00	\$57.11
	12/01/2017	\$33.25	\$10.00	\$14.55	\$0.00	\$57.80

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DELEADER (BRIDGE) PAINTERS LOCAL 35 - ZONE 2	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

**Apprentice - PAINTER Local 35 - BRIDGES/TANKS**

**Effective Date - 07/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.28	\$7.85	\$0.00	\$0.00	\$32.13
2	55	\$26.71	\$7.85	\$3.66	\$0.00	\$38.22
3	60	\$29.14	\$7.85	\$3.99	\$0.00	\$40.98
4	65	\$31.56	\$7.85	\$4.32	\$0.00	\$43.73
5	70	\$33.99	\$7.85	\$14.11	\$0.00	\$55.95
6	75	\$36.42	\$7.85	\$14.44	\$0.00	\$58.71
7	80	\$38.85	\$7.85	\$14.77	\$0.00	\$61.47
8	90	\$43.70	\$7.85	\$15.44	\$0.00	\$66.99

**Effective Date - 01/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.76	\$7.85	\$0.00	\$0.00	\$32.61
2	55	\$27.23	\$7.85	\$3.66	\$0.00	\$38.74
3	60	\$29.71	\$7.85	\$3.99	\$0.00	\$41.55
4	65	\$32.18	\$7.85	\$4.32	\$0.00	\$44.35
5	70	\$34.66	\$7.85	\$14.11	\$0.00	\$56.62
6	75	\$37.13	\$7.85	\$14.44	\$0.00	\$59.42
7	80	\$39.61	\$7.85	\$14.77	\$0.00	\$62.23
8	90	\$44.56	\$7.85	\$15.44	\$0.00	\$67.85

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

DEMO: ADZEMAN LABORERS - ZONE 2	06/01/2015	\$35.25	\$7.30	\$13.20	\$0.00	\$55.75
	12/01/2015	\$36.00	\$7.30	\$13.20	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 2	06/01/2015	\$36.25	\$7.30	\$13.20	\$0.00	\$56.75
	12/01/2015	\$37.00	\$7.30	\$13.20	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS LABORERS - ZONE 2	06/01/2015	\$36.00	\$7.30	\$13.20	\$0.00	\$56.50
	12/01/2015	\$36.75	\$7.30	\$13.20	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 2	06/01/2015	\$36.25	\$7.30	\$13.20	\$0.00	\$56.75
	12/01/2015	\$37.00	\$7.30	\$13.20	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR LABORERS - ZONE 2	06/01/2015	\$36.00	\$7.30	\$13.20	\$0.00	\$56.50
	12/01/2015	\$36.75	\$7.30	\$13.20	\$0.00	\$57.25

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER	06/01/2015	\$35.25	\$7.30	\$13.20	\$0.00	\$55.75
LABORERS - ZONE 2	12/01/2015	\$36.00	\$7.30	\$13.20	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
OPERATING ENGINEERS LOCAL 4	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER	08/01/2015	\$58.86	\$9.80	\$19.23	\$0.00	\$87.89
PILE DRIVER LOCAL 56 (ZONE 1)						
DIVER TENDER	08/01/2015	\$42.04	\$9.80	\$19.23	\$0.00	\$71.07
PILE DRIVER LOCAL 56 (ZONE 1)						
DIVER TENDER (EFFLUENT)	08/01/2015	\$63.06	\$9.80	\$19.23	\$0.00	\$92.09
PILE DRIVER LOCAL 56 (ZONE 1)						
DIVER/SLURRY (EFFLUENT)	08/01/2015	\$88.23	\$9.80	\$19.23	\$0.00	\$117.26
PILE DRIVER LOCAL 56 (ZONE 1)						
ELECTRICIAN	09/01/2014	\$37.31	\$8.00	\$11.03	\$0.00	\$56.34
ELECTRICIANS LOCAL 223	09/01/2015	\$38.31	\$8.40	\$11.28	\$0.00	\$57.99
	09/01/2016	\$39.21	\$8.90	\$11.51	\$0.00	\$59.62

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - ELECTRICIAN - Local 223**

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$14.92	\$0.00	\$0.45	\$0.00	\$15.37
2	42	\$15.67	\$0.00	\$0.47	\$0.00	\$16.14
3	45	\$16.79	\$8.00	\$0.50	\$0.00	\$25.29
4	48	\$17.91	\$8.00	\$3.30	\$0.00	\$29.21
5	50	\$18.66	\$8.00	\$3.41	\$0.00	\$30.07
6	55	\$20.52	\$8.00	\$3.68	\$0.00	\$32.20
7	60	\$22.39	\$8.00	\$3.94	\$0.00	\$34.33
8	65	\$24.25	\$8.00	\$4.22	\$0.00	\$36.47
9	70	\$26.12	\$8.00	\$4.48	\$0.00	\$38.60
10	75	\$27.98	\$8.00	\$4.76	\$0.00	\$40.74

Effective Date - 09/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.32	\$0.00	\$0.46	\$0.00	\$15.78
2	42	\$16.09	\$0.00	\$0.48	\$0.00	\$16.57
3	45	\$17.24	\$8.40	\$0.52	\$0.00	\$26.16
4	48	\$18.39	\$8.40	\$3.36	\$0.00	\$30.15
5	50	\$19.16	\$8.40	\$3.47	\$0.00	\$31.03
6	55	\$21.07	\$8.40	\$3.75	\$0.00	\$33.22
7	60	\$22.99	\$8.40	\$4.03	\$0.00	\$35.42
8	65	\$24.90	\$8.40	\$4.31	\$0.00	\$37.61
9	70	\$26.82	\$8.40	\$5.28	\$0.00	\$40.50
10	75	\$28.73	\$8.40	\$4.86	\$0.00	\$41.99

**Notes:**

Steps are 750 hours

**Apprentice to Journeyworker Ratio:2:3\*\*\***

ELEVATOR CONSTRUCTOR	01/01/2015	\$53.30	\$13.58	\$14.21	\$0.00	\$81.09
ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2016	\$54.53	\$14.43	\$14.96	\$0.00	\$83.92
	01/01/2017	\$55.86	\$15.28	\$15.71	\$0.00	\$86.85

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - ELEVATOR CONSTRUCTOR - Local 4**

Effective Date - 01/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.65	\$13.58	\$0.00	\$0.00	\$40.23
2	55	\$29.32	\$13.58	\$14.21	\$0.00	\$57.11
3	65	\$34.65	\$13.58	\$14.21	\$0.00	\$62.44
4	70	\$37.31	\$13.58	\$14.21	\$0.00	\$65.10
5	80	\$42.64	\$13.58	\$14.21	\$0.00	\$70.43

Effective Date - 01/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.27	\$14.43	\$0.00	\$0.00	\$41.70
2	55	\$29.99	\$14.43	\$14.96	\$0.00	\$59.38
3	65	\$35.44	\$14.43	\$14.96	\$0.00	\$64.83
4	70	\$38.17	\$14.43	\$14.96	\$0.00	\$67.56
5	80	\$43.62	\$14.43	\$14.96	\$0.00	\$73.01

**Notes:**

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

**Apprentice to Journeyworker Ratio:1:1**

ELEVATOR CONSTRUCTOR HELPER	01/01/2015	\$37.31	\$13.58	\$14.21	\$0.00	\$65.10
ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2016	\$38.17	\$14.43	\$14.96	\$0.00	\$67.56
	01/01/2017	\$39.10	\$15.28	\$15.71	\$0.00	\$70.09
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"						
FENCE & GUARD RAIL ERECTOR	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
LABORERS - ZONE 2	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	05/01/2015	\$40.22	\$10.00	\$14.30	\$0.00	\$64.52
OPERATING ENGINEERS LOCAL 4	11/01/2015	\$40.80	\$10.00	\$14.30	\$0.00	\$65.10
	05/01/2016	\$41.69	\$10.00	\$14.30	\$0.00	\$65.99
	11/01/2016	\$42.28	\$10.00	\$14.30	\$0.00	\$66.58
	05/01/2017	\$43.16	\$10.00	\$14.30	\$0.00	\$67.46
	11/01/2017	\$43.89	\$10.00	\$14.30	\$0.00	\$68.19
	05/01/2018	\$44.60	\$10.00	\$14.30	\$0.00	\$68.90
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	05/01/2015	\$41.65	\$10.00	\$14.30	\$0.00	\$65.95
OPERATING ENGINEERS LOCAL 4	11/01/2015	\$42.24	\$10.00	\$14.30	\$0.00	\$66.54
	05/01/2016	\$43.13	\$10.00	\$14.30	\$0.00	\$67.43
	11/01/2016	\$43.73	\$10.00	\$14.30	\$0.00	\$68.03
	05/01/2017	\$44.62	\$10.00	\$14.30	\$0.00	\$68.92
	11/01/2017	\$45.35	\$10.00	\$14.30	\$0.00	\$69.65
	05/01/2018	\$46.07	\$10.00	\$14.30	\$0.00	\$70.37

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2015	\$21.68	\$10.00	\$14.30	\$0.00	\$45.98
	11/01/2015	\$22.02	\$10.00	\$14.30	\$0.00	\$46.32
	05/01/2016	\$22.54	\$10.00	\$14.30	\$0.00	\$46.84
	11/01/2016	\$22.89	\$10.00	\$14.30	\$0.00	\$47.19
	05/01/2017	\$23.42	\$10.00	\$14.30	\$0.00	\$47.72
	11/01/2017	\$23.84	\$10.00	\$14.30	\$0.00	\$48.14
	05/01/2018	\$24.27	\$10.00	\$14.30	\$0.00	\$48.57
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 223</i>	09/01/2014	\$37.31	\$8.00	\$11.03	\$0.00	\$56.34
	09/01/2015	\$38.31	\$8.40	\$11.28	\$0.00	\$57.99
	09/01/2016	\$39.21	\$8.90	\$11.51	\$0.00	\$59.62
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING <i>ELECTRICIANS</i> <i>LOCAL 223</i>	09/01/2014	\$31.71	\$8.00	\$9.38	\$0.00	\$49.09
	09/01/2015	\$32.56	\$8.40	\$9.59	\$0.00	\$50.55
	09/01/2016	\$33.33	\$8.90	\$9.78	\$0.00	\$52.01
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$35.64	\$10.00	\$14.55	\$0.00	\$60.19
	12/01/2015	\$36.69	\$10.00	\$14.55	\$0.00	\$61.24
	06/01/2016	\$37.31	\$10.00	\$14.55	\$0.00	\$61.86
	12/01/2016	\$38.35	\$10.00	\$14.55	\$0.00	\$62.90
	06/01/2017	\$39.19	\$10.00	\$14.55	\$0.00	\$63.74
	12/01/2017	\$40.02	\$10.00	\$14.55	\$0.00	\$64.57
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER <i>LABORERS - ZONE 2</i>	06/01/2015	\$20.50	\$7.30	\$12.30	\$0.00	\$40.10
	12/01/2015	\$20.50	\$7.30	\$12.30	\$0.00	\$40.10
	06/01/2016	\$20.50	\$7.30	\$12.30	\$0.00	\$40.10
	12/01/2016	\$20.50	\$7.30	\$12.30	\$0.00	\$40.10
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	09/01/2014	\$40.40	\$9.80	\$17.21	\$0.00	\$67.41

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - FLOORCOVERER - Local 2168 Zone 1**

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.20	\$9.80	\$1.79	\$0.00	\$31.79
2	55	\$22.22	\$9.80	\$1.79	\$0.00	\$33.81
3	60	\$24.24	\$9.80	\$11.84	\$0.00	\$45.88
4	65	\$26.26	\$9.80	\$11.84	\$0.00	\$47.90
5	70	\$28.28	\$9.80	\$13.63	\$0.00	\$51.71
6	75	\$30.30	\$9.80	\$13.63	\$0.00	\$53.73
7	80	\$32.32	\$9.80	\$15.42	\$0.00	\$57.54
8	85	\$34.34	\$9.80	\$15.42	\$0.00	\$59.56

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

FORK LIFT/CHERRY PICKER OPERATING ENGINEERS LOCAL 4	06/01/2015	\$42.83	\$10.00	\$14.55	\$0.00	\$67.38
	12/01/2015	\$44.08	\$10.00	\$14.55	\$0.00	\$68.63
	06/01/2016	\$44.83	\$10.00	\$14.55	\$0.00	\$69.38
	12/01/2016	\$46.08	\$10.00	\$14.55	\$0.00	\$70.63
	06/01/2017	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
	12/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GENERATOR/LIGHTING PLANT/HEATERS OPERATING ENGINEERS LOCAL 4	06/01/2015	\$29.61	\$10.00	\$14.55	\$0.00	\$54.16
	12/01/2015	\$30.48	\$10.00	\$14.55	\$0.00	\$55.03
	06/01/2016	\$31.00	\$10.00	\$14.55	\$0.00	\$55.55
	12/01/2016	\$31.87	\$10.00	\$14.55	\$0.00	\$56.42
	06/01/2017	\$32.56	\$10.00	\$14.55	\$0.00	\$57.11
	12/01/2017	\$33.25	\$10.00	\$14.55	\$0.00	\$57.80

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 35 (ZONE 2)	07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
	01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
	07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - GLAZIER - Local 35 Zone 2**  
**Effective Date - 07/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.03	\$7.85	\$0.00	\$0.00	\$26.88
2	55	\$20.93	\$7.85	\$3.66	\$0.00	\$32.44
3	60	\$22.84	\$7.85	\$3.99	\$0.00	\$34.68
4	65	\$24.74	\$7.85	\$4.32	\$0.00	\$36.91
5	70	\$26.64	\$7.85	\$14.11	\$0.00	\$48.60
6	75	\$28.55	\$7.85	\$14.44	\$0.00	\$50.84
7	80	\$30.45	\$7.85	\$14.77	\$0.00	\$53.07
8	90	\$34.25	\$7.85	\$15.44	\$0.00	\$57.54

**Effective Date - 01/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.51	\$7.85	\$0.00	\$0.00	\$27.36
2	55	\$21.46	\$7.85	\$3.66	\$0.00	\$32.97
3	60	\$23.41	\$7.85	\$3.99	\$0.00	\$35.25
4	65	\$25.36	\$7.85	\$4.32	\$0.00	\$37.53
5	70	\$27.31	\$7.85	\$14.11	\$0.00	\$49.27
6	75	\$29.26	\$7.85	\$14.44	\$0.00	\$51.55
7	80	\$31.21	\$7.85	\$14.77	\$0.00	\$53.83
8	90	\$35.11	\$7.85	\$15.44	\$0.00	\$58.40

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

HOISTING ENGINEER/CRANES/GRADALLS	06/01/2015	\$42.83	\$10.00	\$14.55	\$0.00	\$67.38
OPERATING ENGINEERS LOCAL 4	12/01/2015	\$44.08	\$10.00	\$14.55	\$0.00	\$68.63
	06/01/2016	\$44.83	\$10.00	\$14.55	\$0.00	\$69.38
	12/01/2016	\$46.08	\$10.00	\$14.55	\$0.00	\$70.63
	06/01/2017	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
	12/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - OPERATING ENGINEERS - Local 4**

**Effective Date - 06/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$23.56	\$10.00	\$0.00	\$0.00	\$33.56
2	60	\$25.70	\$10.00	\$14.55	\$0.00	\$50.25
3	65	\$27.84	\$10.00	\$14.55	\$0.00	\$52.39
4	70	\$29.98	\$10.00	\$14.55	\$0.00	\$54.53
5	75	\$32.12	\$10.00	\$14.55	\$0.00	\$56.67
6	80	\$34.26	\$10.00	\$14.55	\$0.00	\$58.81
7	85	\$36.41	\$10.00	\$14.55	\$0.00	\$60.96
8	90	\$38.55	\$10.00	\$14.55	\$0.00	\$63.10

**Effective Date - 12/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$24.24	\$10.00	\$0.00	\$0.00	\$34.24
2	60	\$26.45	\$10.00	\$14.55	\$0.00	\$51.00
3	65	\$28.65	\$10.00	\$14.55	\$0.00	\$53.20
4	70	\$30.86	\$10.00	\$14.55	\$0.00	\$55.41
5	75	\$33.06	\$10.00	\$14.55	\$0.00	\$57.61
6	80	\$35.26	\$10.00	\$14.55	\$0.00	\$59.81
7	85	\$37.47	\$10.00	\$14.55	\$0.00	\$62.02
8	90	\$39.67	\$10.00	\$14.55	\$0.00	\$64.22

**Notes:**

**Apprentice to Journeyworker Ratio:1:6**

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 17 - A	08/01/2015	\$43.31	\$10.20	\$21.48	\$2.25	\$77.24
	02/01/2016	\$44.31	\$10.20	\$21.48	\$2.25	\$78.24
	08/01/2016	\$45.46	\$10.20	\$21.48	\$2.25	\$79.39
	02/01/2017	\$46.56	\$10.20	\$21.48	\$2.25	\$80.49
	08/01/2017	\$47.66	\$10.20	\$21.48	\$2.25	\$81.59
	02/01/2018	\$48.81	\$10.20	\$21.48	\$2.25	\$82.74

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 223	09/01/2014	\$37.31	\$8.00	\$11.03	\$0.00	\$56.34
	09/01/2015	\$38.31	\$8.40	\$11.28	\$0.00	\$57.99
	09/01/2016	\$39.21	\$8.90	\$11.51	\$0.00	\$59.62

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - ATR) SHEETMETAL WORKERS LOCAL 17 - A	08/01/2015	\$43.31	\$10.20	\$21.48	\$2.25	\$77.24
	02/01/2016	\$44.31	\$10.20	\$21.48	\$2.25	\$78.24
	08/01/2016	\$45.46	\$10.20	\$21.48	\$2.25	\$79.39
	02/01/2017	\$46.56	\$10.20	\$21.48	\$2.25	\$80.49
	08/01/2017	\$47.66	\$10.20	\$21.48	\$2.25	\$81.59
	02/01/2018	\$48.81	\$10.20	\$21.48	\$2.25	\$82.74

For apprentice rates see "Apprentice- SHEET METAL WORKER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (TESTING AND BALANCING - WATER) <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	12/01/2015	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	06/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50
	12/01/2016	\$33.65	\$7.30	\$12.30	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	09/01/2014	\$43.31	\$11.25	\$12.60	\$0.00	\$67.16

**Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.66	\$11.25	\$9.35	\$0.00	\$42.26
2	60	\$25.99	\$11.25	\$10.00	\$0.00	\$47.24
3	70	\$30.32	\$11.25	\$10.65	\$0.00	\$52.22
4	80	\$34.65	\$11.25	\$11.30	\$0.00	\$57.20

**Notes:**

Steps are 1 year

**Apprentice to Journeyworker Ratio:1:4**

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	03/16/2015	\$42.11	\$7.70	\$20.25	\$0.00	\$70.06
---	------------	---------	--------	---------	--------	---------

**Apprentice - IRONWORKER - Local 7 Boston**

**Effective Date - 03/16/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.27	\$7.70	\$20.25	\$0.00	\$53.22
2	70	\$29.48	\$7.70	\$20.25	\$0.00	\$57.43
3	75	\$31.58	\$7.70	\$20.25	\$0.00	\$59.53
4	80	\$33.69	\$7.70	\$20.25	\$0.00	\$61.64
5	85	\$35.79	\$7.70	\$20.25	\$0.00	\$63.74
6	90	\$37.90	\$7.70	\$20.25	\$0.00	\$65.85

**Notes:**

\*\* Structural 1:6; Ornamental 1:4

**Apprentice to Journeyworker Ratio:\*\***

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
JACKHAMMER & PAVING BREAKER OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

LABORER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.15	\$7.30	\$12.30	\$0.00	\$50.75
	12/01/2015	\$31.65	\$7.30	\$12.30	\$0.00	\$51.25
	06/01/2016	\$32.15	\$7.30	\$12.30	\$0.00	\$51.75
	12/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50

**Apprentice - LABORER - Zone 2**

Effective Date - 06/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.69	\$7.30	\$12.30	\$0.00	\$38.29
2	70	\$21.81	\$7.30	\$12.30	\$0.00	\$41.41
3	80	\$24.92	\$7.30	\$12.30	\$0.00	\$44.52
4	90	\$28.04	\$7.30	\$12.30	\$0.00	\$47.64

Effective Date - 12/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.99	\$7.30	\$12.30	\$0.00	\$38.59
2	70	\$22.16	\$7.30	\$12.30	\$0.00	\$41.76
3	80	\$25.32	\$7.30	\$12.30	\$0.00	\$44.92
4	90	\$28.49	\$7.30	\$12.30	\$0.00	\$48.09

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

LABORER: CARPENTER TENDER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.15	\$7.30	\$12.30	\$0.00	\$50.75
	12/01/2015	\$31.65	\$7.30	\$12.30	\$0.00	\$51.25
	06/01/2016	\$32.15	\$7.30	\$12.30	\$0.00	\$51.75
	12/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.15	\$7.30	\$12.30	\$0.00	\$50.75
	12/01/2015	\$31.65	\$7.30	\$12.30	\$0.00	\$51.25
	06/01/2016	\$32.15	\$7.30	\$12.30	\$0.00	\$51.75
	12/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.35	\$7.30	\$12.25	\$0.00	\$50.90
	12/01/2015	\$31.85	\$7.30	\$12.25	\$0.00	\$51.40

For apprentice rates see "Apprentice- LABORER"

LABORER: MASON TENDER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.15	\$7.30	\$12.30	\$0.00	\$50.75
	12/01/2015	\$31.65	\$7.30	\$12.30	\$0.00	\$51.25
	06/01/2016	\$32.15	\$7.30	\$12.30	\$0.00	\$51.75
	12/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.15	\$7.30	\$12.30	\$0.00	\$50.75
	12/01/2015	\$31.65	\$7.30	\$12.30	\$0.00	\$51.25
	06/01/2016	\$32.15	\$7.30	\$12.30	\$0.00	\$51.75
	12/01/2016	\$32.90	\$7.30	\$12.30	\$0.00	\$52.50
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2015	\$38.08	\$10.18	\$17.25	\$0.00	\$65.51
	02/01/2016	\$38.53	\$10.18	\$17.25	\$0.00	\$65.96
	08/01/2016	\$39.23	\$10.18	\$17.33	\$0.00	\$66.74
	02/01/2017	\$39.69	\$10.18	\$17.33	\$0.00	\$67.20

**Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile**

**Effective Date - 08/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.04	\$10.18	\$17.25	\$0.00	\$46.47
2	60	\$22.85	\$10.18	\$17.25	\$0.00	\$50.28
3	70	\$26.66	\$10.18	\$17.25	\$0.00	\$54.09
4	80	\$30.46	\$10.18	\$17.25	\$0.00	\$57.89
5	90	\$34.27	\$10.18	\$17.25	\$0.00	\$61.70

**Effective Date - 02/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.27	\$10.18	\$17.25	\$0.00	\$46.70
2	60	\$23.12	\$10.18	\$17.25	\$0.00	\$50.55
3	70	\$26.97	\$10.18	\$17.25	\$0.00	\$54.40
4	80	\$30.82	\$10.18	\$17.25	\$0.00	\$58.25
5	90	\$34.68	\$10.18	\$17.25	\$0.00	\$62.11

**Notes:**

**Apprentice to Journeyworker Ratio: 1:3**

MARBLE MASONS, TILELAYERS & TERRAZZO MECH <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2015	\$49.90	\$10.18	\$18.57	\$0.00	\$78.65
	02/01/2016	\$50.47	\$10.18	\$18.57	\$0.00	\$79.22
	08/01/2016	\$51.37	\$10.18	\$18.65	\$0.00	\$80.20
	02/01/2017	\$51.94	\$10.18	\$18.65	\$0.00	\$80.77

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile**

**Effective Date - 08/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.95	\$10.18	\$18.57	\$0.00	\$53.70
2	60	\$29.94	\$10.18	\$18.57	\$0.00	\$58.69
3	70	\$34.93	\$10.18	\$18.57	\$0.00	\$63.68
4	80	\$39.92	\$10.18	\$18.57	\$0.00	\$68.67
5	90	\$44.91	\$10.18	\$18.57	\$0.00	\$73.66

**Effective Date - 02/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.24	\$10.18	\$18.57	\$0.00	\$53.99
2	60	\$30.28	\$10.18	\$18.57	\$0.00	\$59.03
3	70	\$35.33	\$10.18	\$18.57	\$0.00	\$64.08
4	80	\$40.38	\$10.18	\$18.57	\$0.00	\$69.13
5	90	\$45.42	\$10.18	\$18.57	\$0.00	\$74.17

**Notes:**

**Apprentice to Journeyworker Ratio:1:5**

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 4	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE OPERATING ENGINEERS LOCAL 4	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 2) MILLWRIGHTS LOCAL 1121 - Zone 2	04/01/2015	\$34.69	\$9.80	\$16.21	\$0.00	\$60.70
--	------------	---------	--------	---------	--------	---------

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Apprentice - MILLWRIGHT - Local 1121 Zone 2</b>						
<b>Effective Date - 04/01/2015</b>						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.08	\$9.80	\$4.48	\$0.00	\$33.36
2	65	\$22.55	\$9.80	\$13.36	\$0.00	\$45.71
3	75	\$26.02	\$9.80	\$14.18	\$0.00	\$50.00
4	85	\$29.49	\$9.80	\$14.99	\$0.00	\$54.28
<b>Notes:</b>						
Steps are 2,000 hours						
Apprentice to Journeyworker Ratio:1:5						
MORTAR MIXER	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
LABORERS - ZONE 2	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	06/01/2015	\$21.97	\$10.00	\$14.55	\$0.00	\$46.52
OPERATING ENGINEERS LOCAL 4	12/01/2015	\$22.62	\$10.00	\$14.55	\$0.00	\$47.17
	06/01/2016	\$23.01	\$10.00	\$14.55	\$0.00	\$47.56
	12/01/2016	\$23.66	\$10.00	\$14.55	\$0.00	\$48.21
	06/01/2017	\$24.17	\$10.00	\$14.55	\$0.00	\$48.72
	12/01/2017	\$24.69	\$10.00	\$14.55	\$0.00	\$49.24
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS)	06/01/2015	\$25.68	\$10.00	\$14.55	\$0.00	\$50.23
OPERATING ENGINEERS LOCAL 4	12/01/2015	\$26.43	\$10.00	\$14.55	\$0.00	\$50.98
	06/01/2016	\$26.89	\$10.00	\$14.55	\$0.00	\$51.44
	12/01/2016	\$27.64	\$10.00	\$14.55	\$0.00	\$52.19
	06/01/2017	\$28.24	\$10.00	\$14.55	\$0.00	\$52.79
	12/01/2017	\$28.85	\$10.00	\$14.55	\$0.00	\$53.40
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
OPERATING ENGINEERS LOCAL 4	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS)	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
PAINTERS LOCAL 35 - ZONE 2	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36



Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New**

**Effective Date - 07/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.73	\$7.85	\$0.00	\$0.00	\$27.58
2	55	\$21.70	\$7.85	\$3.66	\$0.00	\$33.21
3	60	\$23.68	\$7.85	\$3.99	\$0.00	\$35.52
4	65	\$25.65	\$7.85	\$4.32	\$0.00	\$37.82
5	70	\$27.62	\$7.85	\$14.11	\$0.00	\$49.58
6	75	\$29.60	\$7.85	\$14.44	\$0.00	\$51.89
7	80	\$31.57	\$7.85	\$14.77	\$0.00	\$54.19
8	90	\$35.51	\$7.85	\$15.44	\$0.00	\$58.80

**Effective Date - 01/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.21	\$7.85	\$0.00	\$0.00	\$28.06
2	55	\$22.23	\$7.85	\$3.66	\$0.00	\$33.74
3	60	\$24.25	\$7.85	\$3.99	\$0.00	\$36.09
4	65	\$26.27	\$7.85	\$4.32	\$0.00	\$38.44
5	70	\$28.29	\$7.85	\$14.11	\$0.00	\$50.25
6	75	\$30.31	\$7.85	\$14.44	\$0.00	\$52.60
7	80	\$32.33	\$7.85	\$14.77	\$0.00	\$54.95
8	90	\$36.37	\$7.85	\$15.44	\$0.00	\$59.66

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PAINTER (SPRAY OR SANDBLAST, REPAINT)	07/01/2015	\$37.52	\$7.85	\$16.10	\$0.00	\$61.47
PAINTERS LOCAL 35 - ZONE 2	01/01/2016	\$38.47	\$7.85	\$16.10	\$0.00	\$62.42
	07/01/2016	\$39.42	\$7.85	\$16.10	\$0.00	\$63.37
	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32





Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT**

**Effective Date - 07/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.06	\$7.85	\$0.00	\$0.00	\$25.91
2	55	\$19.87	\$7.85	\$3.66	\$0.00	\$31.38
3	60	\$21.67	\$7.85	\$3.99	\$0.00	\$33.51
4	65	\$23.48	\$7.85	\$4.32	\$0.00	\$35.65
5	70	\$25.28	\$7.85	\$14.11	\$0.00	\$47.24
6	75	\$27.09	\$7.85	\$14.44	\$0.00	\$49.38
7	80	\$28.90	\$7.85	\$14.77	\$0.00	\$51.52
8	90	\$32.51	\$7.85	\$15.44	\$0.00	\$55.80

**Effective Date - 01/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.54	\$7.85	\$0.00	\$0.00	\$26.39
2	55	\$20.39	\$7.85	\$3.66	\$0.00	\$31.90
3	60	\$22.24	\$7.85	\$3.99	\$0.00	\$34.08
4	65	\$24.10	\$7.85	\$4.32	\$0.00	\$36.27
5	70	\$25.95	\$7.85	\$14.11	\$0.00	\$47.91
6	75	\$27.80	\$7.85	\$14.44	\$0.00	\$50.09
7	80	\$29.66	\$7.85	\$14.77	\$0.00	\$52.28
8	90	\$33.36	\$7.85	\$15.44	\$0.00	\$56.65

**Notes:**

Steps are 750 hrs.

**Apprentice to Journeyworker Ratio:1:1**

PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2012	\$30.28	\$9.07	\$8.00	\$0.00	\$47.35
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2015	\$42.04	\$9.80	\$19.23	\$0.00	\$71.07
PILE DRIVER PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2015	\$42.04	\$9.80	\$19.23	\$0.00	\$71.07

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

**Apprentice - PILE DRIVER - Local 56 Zone 1**

Effective Date - 08/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.02	\$9.80	\$19.59	\$0.00	\$50.41
2	60	\$25.22	\$9.80	\$19.59	\$0.00	\$54.61
3	70	\$29.43	\$9.80	\$19.59	\$0.00	\$58.82
4	75	\$31.53	\$9.80	\$19.59	\$0.00	\$60.92
5	80	\$33.63	\$9.80	\$19.59	\$0.00	\$63.02
6	80	\$33.63	\$9.80	\$19.59	\$0.00	\$63.02
7	90	\$37.84	\$9.80	\$19.59	\$0.00	\$67.23
8	90	\$37.84	\$9.80	\$19.59	\$0.00	\$67.23

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

PIPELAYER	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
LABORERS - ZONE 2	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

PLUMBER & PIPEFITTER	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
PLUMBERS & PIPEFITTERS LOCAL 51	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - PLUMBER/PIPEFITTER - Local 51**

Effective Date - 03/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$14.65	\$11.00	\$1.50	\$0.00	\$27.15
2	50	\$18.32	\$11.00	\$1.50	\$0.00	\$30.82
3	60	\$21.98	\$11.00	\$7.85	\$0.00	\$40.83
4	70	\$25.64	\$11.00	\$11.66	\$0.00	\$48.30
5	80	\$29.30	\$11.00	\$15.35	\$0.00	\$55.65

Effective Date - 09/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$14.95	\$11.00	\$1.50	\$0.00	\$27.45
2	50	\$18.69	\$11.00	\$1.50	\$0.00	\$31.19
3	60	\$22.43	\$11.00	\$7.85	\$0.00	\$41.28
4	70	\$26.17	\$11.00	\$11.66	\$0.00	\$48.83
5	80	\$29.90	\$11.00	\$15.35	\$0.00	\$56.25

**Notes:**

Steps 2000hrs. Prior 9/1/05; 40/40/45/50/55/60/65/75/80/85

**Apprentice to Journeyworker Ratio:1:3**

PNEUMATIC CONTROLS (TEMP.) PLUMBERS & PIPEFITTERS LOCAL 51	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
PNEUMATIC DRILL/TOOL OPERATOR LABORERS - ZONE 2	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER LABORERS - ZONE 2	06/01/2015	\$32.15	\$7.30	\$12.30	\$0.00	\$51.75
	12/01/2015	\$32.65	\$7.30	\$12.30	\$0.00	\$52.25
	06/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
	12/01/2016	\$33.90	\$7.30	\$12.30	\$0.00	\$53.50
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE OPERATING ENGINEERS LOCAL 4	06/01/2015	\$42.83	\$10.00	\$14.55	\$0.00	\$67.38
	12/01/2015	\$44.08	\$10.00	\$14.55	\$0.00	\$68.63
	06/01/2016	\$44.83	\$10.00	\$14.55	\$0.00	\$69.38
	12/01/2016	\$46.08	\$10.00	\$14.55	\$0.00	\$70.63
	06/01/2017	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
	12/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$42.83	\$10.00	\$14.55	\$0.00	\$67.38
	12/01/2015	\$44.08	\$10.00	\$14.55	\$0.00	\$68.63
	06/01/2016	\$44.83	\$10.00	\$14.55	\$0.00	\$69.38
	12/01/2016	\$46.08	\$10.00	\$14.55	\$0.00	\$70.63
	06/01/2017	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
	12/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$29.61	\$10.00	\$14.55	\$0.00	\$54.16
	12/01/2015	\$30.48	\$10.00	\$14.55	\$0.00	\$55.03
	06/01/2016	\$31.00	\$10.00	\$14.55	\$0.00	\$55.55
	12/01/2016	\$31.87	\$10.00	\$14.55	\$0.00	\$56.42
	06/01/2017	\$32.56	\$10.00	\$14.55	\$0.00	\$57.11
	12/01/2017	\$33.25	\$10.00	\$14.55	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 653</i>	08/01/2008	\$19.76	\$7.16	\$4.21	\$0.00	\$31.13
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2011	\$24.24	\$8.67	\$15.51	\$0.00	\$48.42
RESIDENTIAL WOOD FRAME CARPENTER **	05/01/2011	\$24.24	\$6.34	\$6.23	\$0.00	\$36.81

\*\* The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. *CARPENTERS -ZONE 2 (Residential Wood)*

As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.

**Apprentice - CARPENTER (Residential Wood Frame) - Zone 2**

Effective Date - 05/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.54	\$6.34	\$0.00	\$0.00	\$20.88
2	60	\$14.54	\$6.34	\$6.23	\$0.00	\$27.11
3	65	\$15.76	\$6.34	\$6.23	\$0.00	\$28.33
4	70	\$16.97	\$6.34	\$6.23	\$0.00	\$29.54
5	75	\$18.18	\$6.34	\$6.23	\$0.00	\$30.75
6	80	\$19.39	\$6.34	\$6.23	\$0.00	\$31.96
7	85	\$20.60	\$6.34	\$6.23	\$0.00	\$33.17
8	90	\$21.82	\$6.34	\$6.23	\$0.00	\$34.39

**Notes:**

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofing Waterproofing &Roofing Damproofg) <i>ROOFERS LOCAL 33</i>	08/01/2015	\$40.11	\$11.00	\$12.00	\$0.00	\$63.11
	02/01/2016	\$41.01	\$11.00	\$12.00	\$0.00	\$64.01

**Apprentice - ROOFER - Local 33**

Effective Date - 08/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.06	\$11.00	\$3.38	\$0.00	\$34.44
2	60	\$24.07	\$11.00	\$12.00	\$0.00	\$47.07
3	65	\$26.07	\$11.00	\$12.00	\$0.00	\$49.07
4	75	\$30.08	\$11.00	\$12.00	\$0.00	\$53.08
5	85	\$34.09	\$11.00	\$12.00	\$0.00	\$57.09

Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.51	\$11.00	\$3.38	\$0.00	\$34.89
2	60	\$24.61	\$11.00	\$12.00	\$0.00	\$47.61
3	65	\$26.66	\$11.00	\$12.00	\$0.00	\$49.66
4	75	\$30.76	\$11.00	\$12.00	\$0.00	\$53.76
5	85	\$34.86	\$11.00	\$12.00	\$0.00	\$57.86

Notes: \*\* 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1  
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

**Apprentice to Journeyworker Ratio:\*\***

ROOFER SLATE / TILE / PRECAST CONCRETE <i>ROOFERS LOCAL 33</i>	08/01/2015	\$40.36	\$11.00	\$12.00	\$0.00	\$63.36
	02/01/2016	\$41.26	\$11.00	\$12.00	\$0.00	\$64.26
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	08/01/2015	\$43.31	\$10.20	\$21.48	\$2.25	\$77.24
	02/01/2016	\$44.31	\$10.20	\$21.48	\$2.25	\$78.24
	08/01/2016	\$45.46	\$10.20	\$21.48	\$2.25	\$79.39
	02/01/2017	\$46.56	\$10.20	\$21.48	\$2.25	\$80.49
	08/01/2017	\$47.66	\$10.20	\$21.48	\$2.25	\$81.59
	02/01/2018	\$48.81	\$10.20	\$21.48	\$2.25	\$82.74

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SHEET METAL WORKER - Local 17-A

Effective Date - 08/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.32	\$10.20	\$4.90	\$0.00	\$32.42
2	40	\$17.32	\$10.20	\$4.90	\$0.00	\$32.42
3	45	\$19.49	\$10.20	\$9.59	\$1.18	\$40.46
4	45	\$19.49	\$10.20	\$9.59	\$1.18	\$40.46
5	50	\$21.66	\$10.20	\$10.45	\$1.27	\$43.58
6	50	\$21.66	\$10.20	\$10.70	\$1.28	\$43.84
7	60	\$25.99	\$10.20	\$12.17	\$1.45	\$49.81
8	65	\$28.15	\$10.20	\$13.04	\$1.54	\$52.93
9	75	\$32.48	\$10.20	\$14.76	\$1.72	\$59.16
10	85	\$36.81	\$10.20	\$15.98	\$1.89	\$64.88

Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.72	\$10.20	\$4.90	\$0.00	\$32.82
2	40	\$17.72	\$10.20	\$4.90	\$0.00	\$32.82
3	45	\$19.94	\$10.20	\$9.59	\$1.19	\$40.92
4	45	\$19.94	\$10.20	\$9.59	\$1.19	\$40.92
5	50	\$22.16	\$10.20	\$10.45	\$1.28	\$44.09
6	50	\$22.16	\$10.20	\$10.70	\$1.29	\$44.35
7	60	\$26.59	\$10.20	\$12.17	\$1.47	\$50.43
8	65	\$28.80	\$10.20	\$13.04	\$1.56	\$53.60
9	75	\$33.23	\$10.20	\$14.76	\$1.75	\$59.94
10	85	\$37.66	\$10.20	\$15.98	\$1.92	\$65.76

Notes:

Steps are 6 mos.

Apprentice to Journeyworker Ratio:1:4

SIGN ERECTOR PAINTERS LOCAL 35 - ZONE 2	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
--	------------	---------	--------	--------	--------	---------

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

**Apprentice - SIGN ERECTOR - Local 35 Zone 2**

Effective Date - 06/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

**Notes:**

Steps are 4 mos.

**Apprentice to Journeyworker Ratio:1:1**

SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	08/01/2015	\$31.94	\$10.41	\$9.33	\$0.00	\$51.68
	12/01/2015	\$31.94	\$10.41	\$10.08	\$0.00	\$52.43
	06/01/2016	\$32.44	\$10.41	\$10.08	\$0.00	\$52.93
	08/01/2016	\$32.44	\$10.91	\$10.08	\$0.00	\$53.43
	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	08/01/2015	\$32.23	\$10.41	\$9.33	\$0.00	\$51.97
	12/01/2015	\$32.23	\$10.41	\$10.08	\$0.00	\$52.72
	06/01/2016	\$32.73	\$10.41	\$10.08	\$0.00	\$53.22
	08/01/2016	\$32.73	\$10.91	\$10.08	\$0.00	\$53.72
	12/01/2016	\$32.73	\$10.91	\$10.89	\$0.00	\$54.53
SPRINKLER FITTER SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1	03/01/2015	\$54.43	\$8.42	\$14.90	\$0.00	\$77.75
	10/01/2015	\$55.58	\$8.42	\$14.90	\$0.00	\$78.90
	01/01/2016	\$55.58	\$8.67	\$15.05	\$0.00	\$79.30
	03/01/2016	\$56.58	\$8.67	\$15.05	\$0.00	\$80.30
	10/01/2016	\$57.73	\$8.67	\$15.05	\$0.00	\$81.45
	03/01/2017	\$58.73	\$8.67	\$15.05	\$0.00	\$82.45

**Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1**

Effective Date - 03/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.05	\$8.42	\$8.40	\$0.00	\$35.87
2	40	\$21.77	\$8.42	\$8.40	\$0.00	\$38.59
3	45	\$24.49	\$8.42	\$8.40	\$0.00	\$41.31
4	50	\$27.22	\$8.42	\$8.40	\$0.00	\$44.04
5	55	\$29.94	\$8.42	\$8.40	\$0.00	\$46.76
6	60	\$32.66	\$8.42	\$8.40	\$0.00	\$49.48
7	65	\$35.38	\$8.42	\$8.40	\$0.00	\$52.20
8	70	\$38.10	\$8.42	\$8.40	\$0.00	\$54.92
9	75	\$40.82	\$8.42	\$8.40	\$0.00	\$57.64
10	80	\$43.54	\$8.42	\$8.40	\$0.00	\$60.36

Effective Date - 10/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.45	\$8.42	\$8.40	\$0.00	\$36.27
2	40	\$22.23	\$8.42	\$8.40	\$0.00	\$39.05
3	45	\$25.01	\$8.42	\$8.40	\$0.00	\$41.83
4	50	\$27.79	\$8.42	\$8.40	\$0.00	\$44.61
5	55	\$30.57	\$8.42	\$8.40	\$0.00	\$47.39
6	60	\$33.35	\$8.42	\$8.40	\$0.00	\$50.17
7	65	\$36.13	\$8.42	\$8.40	\$0.00	\$52.95
8	70	\$38.91	\$8.42	\$8.40	\$0.00	\$55.73
9	75	\$41.69	\$8.42	\$8.40	\$0.00	\$58.51
10	80	\$44.46	\$8.42	\$8.40	\$0.00	\$61.28

Notes: Apprentice entered prior 9/30/10:  
40/45/50/55/60/65/70/75/80/85  
Steps are 850 hours

Apprentice to Journeyworker Ratio:1:3

STEAM BOILER OPERATOR OPERATING ENGINEERS LOCAL 4	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN OPERATING ENGINEERS LOCAL 4	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 223</i>	09/01/2014	\$31.71	\$8.00	\$9.38	\$0.00	\$49.09
	09/01/2015	\$32.56	\$8.40	\$9.59	\$0.00	\$50.55
	09/01/2016	\$33.33	\$8.90	\$9.78	\$0.00	\$52.01

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 223**

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Notes:** See Electrician Apprentice Wages  
Steps are 750hrs  
Telecom Apprentice Wages shall be the same as the Electrician Apprentice Wages  
**Apprentice to Journeyworker Ratio:2:3**

TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	08/01/2015	\$48.80	\$10.18	\$18.57	\$0.00	\$77.55
	02/01/2016	\$49.37	\$10.18	\$18.57	\$0.00	\$78.12
	08/01/2016	\$50.27	\$10.18	\$18.65	\$0.00	\$79.10
	02/01/2017	\$50.84	\$10.18	\$18.65	\$0.00	\$79.67

**Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**

**Effective Date - 08/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.40	\$10.18	\$18.57	\$0.00	\$53.15
2	60	\$29.28	\$10.18	\$18.57	\$0.00	\$58.03
3	70	\$34.16	\$10.18	\$18.57	\$0.00	\$62.91
4	80	\$39.04	\$10.18	\$18.57	\$0.00	\$67.79
5	90	\$43.92	\$10.18	\$18.57	\$0.00	\$72.67

**Effective Date - 02/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.69	\$10.18	\$18.57	\$0.00	\$53.44
2	60	\$29.62	\$10.18	\$18.57	\$0.00	\$58.37
3	70	\$34.56	\$10.18	\$18.57	\$0.00	\$63.31
4	80	\$39.50	\$10.18	\$18.57	\$0.00	\$68.25
5	90	\$44.43	\$10.18	\$18.57	\$0.00	\$73.18

**Notes:**

**Apprentice to Journeyworker Ratio:1:3**

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2015	\$36.45	\$7.30	\$13.40	\$0.00	\$57.15
	12/01/2015	\$37.20	\$7.30	\$13.40	\$0.00	\$57.90
	06/01/2016	\$37.95	\$7.30	\$13.40	\$0.00	\$58.65
	12/01/2016	\$38.95	\$7.30	\$13.40	\$0.00	\$59.65

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2015	\$35.17	\$7.30	\$13.40	\$0.00	\$55.87
	12/01/2015	\$35.92	\$7.30	\$13.40	\$0.00	\$56.62
	06/01/2016	\$36.67	\$7.30	\$13.40	\$0.00	\$57.37
	12/01/2016	\$37.67	\$7.30	\$13.40	\$0.00	\$58.37
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2015	\$35.05	\$7.30	\$13.40	\$0.00	\$55.75
	12/01/2015	\$35.80	\$7.30	\$13.40	\$0.00	\$56.50
	06/01/2016	\$36.55	\$7.30	\$13.40	\$0.00	\$57.25
	12/01/2016	\$37.55	\$7.30	\$13.40	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$42.42	\$10.00	\$14.55	\$0.00	\$66.97
	12/01/2015	\$43.66	\$10.00	\$14.55	\$0.00	\$68.21
	06/01/2016	\$44.41	\$10.00	\$14.55	\$0.00	\$68.96
	12/01/2016	\$45.64	\$10.00	\$14.55	\$0.00	\$70.19
	06/01/2017	\$46.63	\$10.00	\$14.55	\$0.00	\$71.18
	12/01/2017	\$47.62	\$10.00	\$14.55	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2015	\$32.52	\$10.41	\$9.33	\$0.00	\$52.26
	12/01/2015	\$32.52	\$10.41	\$10.08	\$0.00	\$53.01
	06/01/2016	\$33.02	\$10.41	\$10.08	\$0.00	\$53.51
	08/01/2016	\$33.02	\$10.91	\$10.08	\$0.00	\$54.01
	12/01/2016	\$33.02	\$10.91	\$10.89	\$0.00	\$54.82
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2015	\$47.33	\$7.30	\$13.80	\$0.00	\$68.43
	12/01/2015	\$48.08	\$7.30	\$13.80	\$0.00	\$69.18
	06/01/2016	\$48.83	\$7.30	\$13.80	\$0.00	\$69.93
	12/01/2016	\$49.83	\$7.30	\$13.80	\$0.00	\$70.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2015	\$49.33	\$7.30	\$13.80	\$0.00	\$70.43
	12/01/2015	\$50.08	\$7.30	\$13.80	\$0.00	\$71.18
	06/01/2016	\$50.83	\$7.30	\$13.80	\$0.00	\$71.93
	12/01/2016	\$51.83	\$7.30	\$13.80	\$0.00	\$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2015	\$39.40	\$7.30	\$13.80	\$0.00	\$60.50
	12/01/2015	\$40.15	\$7.30	\$13.80	\$0.00	\$61.25
	06/01/2016	\$40.90	\$7.30	\$13.80	\$0.00	\$62.00
	12/01/2016	\$41.90	\$7.30	\$13.80	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2015	\$41.40	\$7.30	\$13.80	\$0.00	\$62.50
	12/01/2015	\$42.15	\$7.30	\$13.80	\$0.00	\$63.25
	06/01/2016	\$42.90	\$7.30	\$13.80	\$0.00	\$64.00
	12/01/2016	\$43.90	\$7.30	\$13.80	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	08/01/2015	\$31.94	\$10.41	\$9.33	\$0.00	\$51.68
	12/01/2015	\$31.94	\$10.41	\$10.08	\$0.00	\$52.43
	06/01/2016	\$32.44	\$10.41	\$10.08	\$0.00	\$52.93
	08/01/2016	\$32.44	\$10.91	\$10.08	\$0.00	\$53.43
	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WAGON DRILL OPERATOR <i>LABORERS - ZONE 2</i>	06/01/2015	\$31.40	\$7.30	\$12.30	\$0.00	\$51.00
	12/01/2015	\$31.90	\$7.30	\$12.30	\$0.00	\$51.50
	06/01/2016	\$32.40	\$7.30	\$12.30	\$0.00	\$52.00
	12/01/2016	\$33.15	\$7.30	\$12.30	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2015	\$42.83	\$10.00	\$14.55	\$0.00	\$67.38
	12/01/2015	\$44.08	\$10.00	\$14.55	\$0.00	\$68.63
	06/01/2016	\$44.83	\$10.00	\$14.55	\$0.00	\$69.38
	12/01/2016	\$46.08	\$10.00	\$14.55	\$0.00	\$70.63
	06/01/2017	\$47.08	\$10.00	\$14.55	\$0.00	\$71.63
12/01/2017	\$48.08	\$10.00	\$14.55	\$0.00	\$72.63	
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS &amp; PIPEFITTERS LOCAL 51</i>	03/01/2015	\$36.63	\$11.00	\$15.35	\$0.00	\$62.98
	09/01/2015	\$37.38	\$11.00	\$15.35	\$0.00	\$63.73
	03/01/2016	\$38.13	\$11.00	\$15.35	\$0.00	\$64.48
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
<b>Outside Electrical - East</b>						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$25.66	\$8.70	\$4.48	\$0.00	\$38.84
	For apprentice rates see "Apprentice- LINEMAN"					
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.55	\$8.70	\$6.58	\$0.00	\$51.83
	For apprentice rates see "Apprentice- LINEMAN"					
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$29.94	\$8.70	\$6.05	\$0.00	\$44.69
	For apprentice rates see "Apprentice- LINEMAN"					
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$5.24	\$0.00	\$37.46
	For apprentice rates see "Apprentice- LINEMAN"					
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.35	\$8.70	\$9.43	\$0.00	\$54.48
	For apprentice rates see "Apprentice- LINEMAN"					
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$32.08	\$8.70	\$6.59	\$0.00	\$47.37
	For apprentice rates see "Apprentice- LINEMAN"					
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$3.72	\$0.00	\$35.94
	For apprentice rates see "Apprentice- LINEMAN"					
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$19.25	\$8.70	\$2.85	\$0.00	\$30.80
	For apprentice rates see "Apprentice- LINEMAN"					
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$42.77	\$8.70	\$11.78	\$0.00	\$63.25

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Apprentice - LINEMAN (Outside Electrical) - East Local 104</b>						
<b>Effective Date - 09/01/2013</b>						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.66	\$8.70	\$4.24	\$0.00	\$38.60
2	65	\$27.80	\$8.70	\$4.71	\$0.00	\$41.21
3	70	\$29.94	\$8.70	\$5.43	\$0.00	\$44.07
4	75	\$32.08	\$8.70	\$6.16	\$0.00	\$46.94
5	80	\$34.22	\$8.70	\$6.88	\$0.00	\$49.80
6	85	\$36.35	\$8.70	\$7.62	\$0.00	\$52.67
7	90	\$38.49	\$8.70	\$8.83	\$0.00	\$56.02

**Notes:**

**Apprentice to Journeyworker Ratio:1:2**

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2015	\$28.12	\$4.25	\$3.09	\$0.00	\$35.46
	01/01/2016	\$28.98	\$4.25	\$3.12	\$0.00	\$36.35
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2015	\$26.49	\$4.25	\$3.04	\$0.00	\$33.78
	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2015	\$26.49	\$4.25	\$3.04	\$0.00	\$33.78
	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/01/2015	\$18.05	\$3.55	\$0.00	\$0.00	\$21.60
	01/31/2016	\$18.51	\$3.55	\$0.00	\$0.00	\$22.06
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is not on the ground. This classification does not apply to wholesale tree removal.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/01/2015	\$15.92	\$3.55	\$0.00	\$0.00	\$19.47
	01/31/2016	\$16.32	\$3.55	\$0.00	\$0.00	\$19.87
This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.						

**Additional Apprentice Information:**

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11I.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11I.

All steps are six months (1000 hours.)  
Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

- \*\* Multiple ratios are listed in the comment field.
- \*\*\* APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.
- \*\*\*\* APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

**ATTACHMENT 2**

**GENERAL REQUIREMENTS**

## **SECTION 01 11 00**

### **SUMMARY OF WORK**

#### **PART 1 – GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Project Description
- B. Description of the Work
- C. Work Sequence and Coordination
- D. Special Requirements
- E. Attachments

##### **1.02 PROJECT DESCRIPTION**

- A. Pine Hills Communication Tower and Compound

##### **1.03 DESCRIPTION OF THE WORK**

- A. The Work includes labor, material and equipment, services required for construction, testing, and commissioning of the Project in accordance with the Contract Documents and as more specifically described in the Specifications and Drawings and includes, but is not limited to, the following principal features:
  - 1. Site Work including access drive
  - 2. Furnishing and erecting a 150 foot communications tower
  - 3. Providing a generator set; concrete pads and foundations for tower, generator set and Owner furnished equipment shelter
  - 4. Placement of Owner furnished equipment shelter
  - 5. Site electrical and grounding Work
  - 6. Security fencing and gates
  - 7. All materials, equipment, services and construction inherent to the Work., and providing all materials, equipment, services and construction inherent to the Work
- B. Work Site locations: generally as shown on the Drawings.

- C. Work By Others
  - 1. Owner furnished equipment shelter and anchoring of shelter by supplier
  - 2. The following work at the Site may be performed by the utility company Eversource.
- D. Existing conditions and Site data: per the Drawings and Section 01 15 00.

#### **1.04 WORK SEQUENCE AND COORDINATION**

- A. Coordination
  - 1. Maintain access to facilities throughout the Project.
  - 2. Coordinate with the electric utility Eversource providing required electrical work at communication tower and compound location.
  - 3. Coordinate with Owner for work by supplier of Owner furnished equipment shelter.

#### **1.05 SPECIAL PROJECT REQUIREMENTS**

- A. Coordinate permitting through the Fire Chief's office to obtain the permits referenced in Section 01 15 00.
- B. Special coordination and requirements for \_\_\_\_\_ are specified in more detail in Section 01 15 00.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

## SECTION 01 15 00

### SPECIFIC PROJECT REQUIREMENTS AND PROCEDURES

The following supplement the requirements and procedures of Sections 01 15 30, 01 50 00, 01 60 00, and 01 70 00 using the same titles, headings, and paragraph numbers to which the supplement applies.

Certain provisions required by Laws and Regulations may be referenced. Contractor is responsible to determine and obtain applicable Laws and Regulations and to review and interpret the full text of such Laws and Regulations.

#### **SECTION 01 15 30 - PAYMENT AND ADMINISTRATIVE PROCEDURES AND QUALITY REQUIREMENTS**

##### **1.03 ADMINISTRATIVE REQUIREMENTS**

Pursuant to Paragraph A. **Project Management and Coordination; Meetings,**

subparagraph 4, **identify documents** and items for the Project as follows.

#### PINE HILLS COMMUNICATION TOWER & COMPOUND

Pursuant to Paragraph B. **Documentation of Progress,**

subparagraph 4. **Reports,** submit the following additional reports.

- a. Updates to the Construction Operations Plan approved pursuant to SC 2.07 of Section 00 73 10 when it is modified

Pursuant to Paragraph C. **Submittal Procedures,** subparagraph 1., address submittals as follows.

Engineer:

Woodard & Curran  
1699 King Street, Suite 406 Enfield, CT 06082  
Attn: Scott Medeiros, PE  
Phone: (o) 860-265-8069 (c) 508-341-8355  
Email: [smedeiros@woodardcurran.com](mailto:smedeiros@woodardcurran.com)

Owner:

Town of Plymouth  
11 Lincoln St, Plymouth, MA 02360  
Attn: Pamela D. Hagler, Procurement Officer  
Phone: 508-747-1620 Ext 107  
Email: [phagler@townhall.plymouth.ma.us](mailto:phagler@townhall.plymouth.ma.us)

## 1.04 QUALITY REQUIREMENTS

Pursuant to Paragraph A. **Reference Standards and Regulatory Requirements**, specific requirements applicable to the Project include the following.

**PART 2** – Special Permits included in Section 00 31 00.

Pursuant to Paragraph B. **Qualifications**, additional requirements include the following specialty experience.

- Any Work involving the removal, containment, or encapsulation of Asbestos or material containing Asbestos may only be performed by a licensed contractor per Section 00 73 73.
- Sheet metal work must be performed by a contractor licensed per Section 00 73 73.

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

### 1.04 TEMPORARY CONTROLS

Pursuant to Paragraph C. **Erosion and Sediment Control**, comply with the following additional requirements.

- Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas, prepared by the MassDEP

Pursuant to Paragraph E. **Pollution Control**, submit a plan and employ additional protective measures to prevent harm to Site from a potential fuel leak or spill from the new generator

Pursuant to Paragraph F. **Traffic Regulation**,

subparagraph 1. regarding a **plan for traffic control**, also submit a schedule of road closures/detours and obtain a road closure and road blockage permit for every location where Work is being performed.

subparagraph 2. regarding the **MUTCD**, comply with the following additional requirements.

- Applicable portions of the “Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices and the Standard Municipal Traffic Code” published by the Massachusetts Department of Transportation Highway Division

subparagraph 4. regarding **use of police officers**, comply with the following additional requirements.

- Coordinate with the Plymouth police department for the number of traffic police required in either the appropriate traffic management plan template (see MassDOT's website) or deemed necessary for the direction and control of traffic to and within the Site.
- 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 Owner. Contractor shall be responsible for scheduling and canceling police details if not needed. Details(s) must be cancelled a minimum of 4 hours in advance of the start of the shift if conditions so warrant. Police details not cancelled in time shall be paid for Contractor.

## **SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS**

### **2.02 OVERALL EXECUTION REQUIREMENTS**

Pursuant to Paragraph A. **Coordination**,

subparagraph 4. **regarding space requirements**, a primary restriction is the width of the streets and volume of traffic to the Project Site which may require complete shut down or partial blocking of the streets during construction. Coordinate with the Fire Department and Police Department.

Pursuant to Paragraph B. **Existing Conditions**,

subparagraph 1. regarding **availability of lands**, easement information for the Project is included in Section 00 31 00.

subparagraph 2. regarding **subsurface/physical conditions**, the reports identified in SC-4.02 of Section 00 73 10 are included in Section 00 31 00.

subparagraph 3. regarding **underground utilities**, comply with the following additional requirements.

**PART 3** – Contact DIGSAFE ([www.digsafe.com](http://www.digsafe.com)) by dialing 811.

subparagraph 4. regarding **reference points**, survey information is included in Section 00 31 00.

Note the **additional information** regarding Existing Conditions included in Section 00 31 00.

**END OF SECTION**

**SPECIFIC PROJECT  
REQUIREMENTS AND PROCEDURES  
01 15 00**

**SECTION 01 15 30**

**PAYMENT AND ADMINISTRATIVE PROCEDURES  
AND QUALITY REQUIREMENTS**

**PART 1 – GENERAL**

**1.01 SUMMARY**

A. This Section specifies administrative and procedural requirements relating to payment, the process of contract administration, and the methods of communicating, controlling, and assuring quality, and applies to all Specifications and Drawings.

1. In certain Paragraphs, checked items indicate those requirements applicable to the Project.
2. Provisions of this Section may be supplemented in the Section 01 15 00 or other sections of Division 01.

**B. Section Includes**

- 1.02 PAYMENT PROCEDURES  
Schedule of Values  
Payment Procedures  
Change Procedures  
Measurement and Payment Procedures  
Correlation of Submittals
- 1.03 ADMINISTRATIVE REQUIREMENTS  
Project Management and Coordination; Meetings  
Documentation of Progress  
Submittal Procedures  
Closeout Procedures
- 1.04 QUALITY REQUIREMENTS  
Reference Standards and Regulatory Requirements  
Qualifications
- 1.05 ATTACHMENTS

## 1.02 PAYMENT PROCEDURES

A. **Schedule of Values:** in accordance with Article 2 of the Standard General and Supplementary Conditions, if any.

1. Provide sufficient detail to allow for determination of the value of the Work at any degree of completion.

For each line item, identify number and title of specification section in accordance with the Table of Contents.

See Section 01 15 00 for additional requirements.

Number of hardcopies: **3**

Submit electronically:  by email  on CD

via digital document exchange system in PDF format

B. **Payment Procedures:** in accordance with Article 14 of Standard General and Supplementary Conditions, if any.

1. Submit Application for Payment using the form included in the Project Forms section. Utilize latest approved Schedule of Values for listing items in Application for Payment. Provide supporting documentation for items included in the Application for Payment.

Number of hardcopies: **3**

Submit electronically:  by email  on CD

via digital document exchange system in PDF format

2. Payment Period: at intervals stipulated in the Agreement.
3. Submit an updated Progress Schedule with each Application for Payment.

See Section 01 15 00 for additional requirements.

C. **Change Procedures:** in accordance with Articles 10 and 12 of Standard General and Supplementary Conditions, if any, utilizing forms included in Section 00 60 00 Project Forms.

Number of hardcopies: 3 of each type of form and accompanying documentation.

Submit electronically:  by email  on CD  
 via digital document exchange system in PDF format

1. Field Order: as authorized by Paragraph 9.04 of the Standard General and Supplementary Conditions, if any.
2. Change Request: as authorized by Paragraph 3.04 of the Standard General and Supplementary Conditions, if any.
  - a. Engineer or Owner to include a detailed description of a proposed change with supplementary or revised Drawings and Specifications, including a change in Contract Times related to the change (with a stipulation for any overtime work required) and the period of time during which the requested price will be considered valid. Prepare and submit an estimate within 15 days.
  - b. Describe the proposed change and its full effect on the Work. Describe the reason for the change and the effect on the Contract Price and Contract Time with full documentation (and a statement describing the effect on Work by separate or other contractors).
3. Work Change Directive: as defined in Paragraph 1.01.A.51 of the Standard General and Supplementary Conditions, if any.
4. Change Order: in accordance with Articles 10 and 12 of the Standard General and Supplementary Conditions, if any.
  - a. *Stipulated Price Change Order:* based on Contractor's maximum price quotation or Contractor's request for a Change Order as approved by Engineer or Owner.
  - b. *Unit Price Change Order:* for pre-determined unit prices and quantities and executed on a fixed unit price basis. Execute Work under a Work Change Directive for unit costs or quantities of Work not pre-determined. Changes in Contract Price and Contract Time to be computed as specified for Time and Material Change Order.

- c. *Time and Material Change Order*: based on itemized account and supporting data after completion of change within time limits indicated in the Standard General and Supplementary Conditions, if any. Engineer or Owner and Contractor to determine the change allowable in Contract Price and Contract Time as provided in the Standard General and Supplementary Conditions, if any. Maintain detailed records of Work completed on this basis, provide provide full information for evaluation of proposed changes, and substantiate costs for changes in the Work.
- 5. “Or Equals” and Substitutes: Request “Or-Equal” and substitute items as a Change Request per subparagraph 1.02.C.2 above, with complete data substantiating compliance with Contract Documents.
  - a. “Or-Equal” and substitute items will be processed in accordance with Paragraph 6.05 of the Standard General and Supplementary Conditions, if any, and subparagraph 1.03.C.6 below.

**D. Measurement and Payment Procedures**

- 1. Payment includes full compensation for required labor, material and equipment, tools, plant, transportation, services and incidentals; erection, application or installation and construction of an item of the Work; and overhead and profit, unless otherwise indicated.
  - See Section 01 20 25 Measurement and Payment
  - See Section 01 15 00 for additional requirements.

**E. Correlation of Submittals**

- 1. Promptly revise Schedule of Values and Applications for Payment to record each authorized Change Order as a separate line item and adjust the Contract Price.
- 2. Promptly revise Progress Schedule to reflect any change in Contract Times and revise sub-schedules to adjust time for other items of the Work affected by the change.
- 3. Promptly enter changes in Project Record Documents.

### 1.03 ADMINISTRATIVE REQUIREMENTS

#### A. Project Management and Coordination; Meetings

1. Contact information for Owner and other entities related to the Project and special coordination requirements and contacts during prosecution of the Work **will be provided at the Preconstruction Conference and Site Mobilization Meeting.**
2. Inform Owner and Engineer of the address for sending official correspondence and the address and telephone number of Contractor's representative who will be project manager and Site superintendent for the Contract.
3. During periods of construction and testing keep Owner and Engineer informed in writing with name, address, and telephone number of Contractor's representative who will be responsible and available outside of normal working hours for emergency repairs and the maintenance of safety devices.  
 Identify the 24 hour, 7 days per week emergency response telephone or cell phone number that is staffed by a person (not a passive answering machine) or provide that a phone call will be returned within one hour.
4. Identify correspondence, submittals, drawings, data and materials, packing slips or other items associated with this Contract as specified in the Section 01 15 00.
5. Coordinate scheduling, submittals, and Work of the various Specifications to effectuate an efficient and orderly sequence for installing interdependent construction elements, with provisions for accommodating items installed later.
6. Preconstruction Conference and Site Mobilization Meeting
  - a. Owner to schedule an initial preconstruction conference in accordance with Paragraph 2.06 of the Standard General and Supplementary Conditions, if any.
  - b. Attendance required by Owner, Contractor, Engineer, Contractor's Superintendent, Project Manager, and Subcontractors as a minimum.

- c. Sample Agenda
- Distribute Contract Documents
  - Discuss design concepts
  - Discuss preliminary Progress Schedule, Schedule of Submittals, Schedule of Values and preliminary cash flow projections.
  - Designate personnel representing each party; communication procedures
  - Procedures and processing of submittals, substitutions, applications for payments, Change Orders and Contract closeout procedures
  - Scheduling
  - Use of premises by Owner and Contractor
  - Owner's requirements and partial occupancy
  - Construction facilities and controls provided by Owner
  - Temporary utilities provided by Owner and Contractor
  - Survey and Site Layout
  - Security and housekeeping procedures
  - Schedules
  - Procedures for testing
  - Procedures for maintaining record documents
  - Requirements for start-up
  - Inspection and acceptance of equipment put into service during construction period
  - Access, laydown and coordination with others
- d. Engineer will record minutes and distribute draft copies promptly after meeting to Owner and Contractor for review, then revise as required and distribute thereafter to meeting participants, with copies to Owner and Contractor, and those affected by decisions made.
7. Progress Meetings
- a. Owner to schedule progress meetings beginning no later than 60 days after the Initial Conference and continue thereafter on a **weekly** basis throughout progress of the Work.
- b. Attendance required by Contractor, Contractor's Superintendent, major Subcontractors and Suppliers, Owner and Engineer as appropriate to agenda topics for each meeting.

- c. Sample Agenda
    - Review minutes of previous meetings – unresolved issues
    - Overall project status
    - Work Completed
    - Anticipated Work
    - Schedule
    - Pay Applications
    - Change Orders
    - Submittals
    - Observations, problems, and decisions
    - General Discussion/Comments
    - Action Items
    - Date and time for next meeting
  - d. Engineer will record minutes and distribute draft copies promptly after meeting to Owner and Contractor for review, then revise as required and distribute thereafter to meeting participants, with copies to Owner and Contractor, and those affected by decisions made.
8. Pre-installation Conference and Coordination Meetings
- a. When required, convene a pre-installation conference at Site before commencing certain Work that requires coordination or has special requirements or approval.
  - b. Convene coordination meetings as may be generally required.
  - c. Attendance required by parties directly affecting, or affected by, Work of the specific Specification section.
    - 1) For pre-installation conference, notify Owner and Engineer 5 days in advance.
    - 2) For coordination meetings, party requesting coordination meeting to notify other party(s).
  - d. Review conditions, preparation and procedures, and coordination with related Work.

**B. Documentation of Progress**

1. Submit preliminary and final Progress Schedules as specified in Paragraphs 2.05 and 2.07 of the Standard General and Supplementary Conditions, if any, or as established in Notice to Proceed.

Number of hardcopies:  3

Submit electronically:  by email  on CD

via digital document exchange system in PDF format

- a. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
  - b. Indicate estimated percentage of completion for each item of Work at each submission.
  - c. Indicate dates for fabrication, factory testing, delivery, shipping and field testing, and material and equipment delivery dates, including those furnished by Owner. Coordinate with Schedule of Submittals.
2. Submit revised Progress Schedule on monthly basis and with each Application for Payment, identifying changes since previous version. Coordinate content with Schedule of Values, if any.
  3. Documentation of pre-construction conditions, construction progress, and final conditions:

Not Required for the Project

Construction Photographs: to record Site conditions. Ensure existing conditions of roadway surfaces, curbing, berms, sidewalks, driveways, property bounds, landscaped areas, abutters property and any other items that might be affected by the Work are clearly recorded.

Submit prior to starting construction.

- Submit photographs with Payment Application:
  - monthly during progress of Work.
  - for final payment to record final condition.

Construction photographs: electronic in PDF or JPG format, minimum 300 dpi quality and a minimum resolution of 6.0 megapixels. Identify photographs with date, time, orientation and Project identification.

Number of copies:  on 8-1/2 by 11 sheets.

Submit electronically:  by email  on CD  
 via digital document exchange system

- Digital Video Recording: Video record, in color, all areas of the Project Site. Ensure existing conditions of roadway surfaces, curbing, berms, sidewalks, driveways, property bounds, landscaped areas, abutters' property and any other items that might be affected by the Work are clearly recorded.
  - Submit prior to the starting construction.
  - Submit at completion of construction.

Arrange for video recordings to be conducted by a professional videographer in digital videodisc (DVD) format. Include clear and concise audio descriptions of the existing Project Site conditions.

Submit 1 copy of the first completed video recording to the Engineer for review of visual and audio quality. Re-record any recording furnished which, in the opinion of the Engineer, are poor quality or incomplete at no additional cost to Owner. Submit  copies of approved videos.

#### 4. Reports

- a. Submit weekly Safety Reports signed by the Safety Representative in accordance with Articles 6.13 and 6.14 of the Standard General and Supplementary Conditions, if any.
- b. Other reports to be submitted:
  - None

Specified in Section 01 15 00

Number of hardcopies: Click & enter #:

Submit electronically:  by email  on CD  
 via digital document exchange system in PDF format

**C. Submittal Procedures**

1. Schedule submittals to expedite the Project and coordinate with schedules required by Paragraph 1.03.B above. Deliver each submittal in the quantity and electronic form indicated to Engineer (with copy to Owner where required) at the addresses specified **in the Specific Project Requirements and Procedures**. Coordinate submission of related items.
2. Present submittals in a clear and thorough manner, in English and using English units. Provide space for Contractor, Engineer, and Owner's review stamps. Use sheet size of not less than 8 1/2 by 11 inches and not more than 24 by 36 inches.
3. Revise and resubmit documents as required. Identify all changes made since previous submittal. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions. Submittals not requested on the submittal schedule may not be recognized or processed.
4. Submit preliminary and final Schedule of Submittals as specified in Article 2 of the Standard General and Supplementary Conditions, if any, or as established in Notice to Proceed. Include all submittals specified in the Standard General and Supplementary Conditions, if any, General Requirements, and other Specification sections.

Number of hardcopies: 3

Submit electronically:  by email  on CD

via digital document exchange system in PDF format

- a. Include description of each submittal, date by which each submittal will be delivered to Engineer and Owner date by which each submittal must be approved to maintain project schedule, and relevant section reference.
- b. Allow 10-15 days from receipt of submittal/resubmittal for Engineer review of submittals and possible resubmittal.

**PAYMENT AND ADMINISTRATIVE PROCEDURES  
AND QUALITY REQUIREMENTS**

5. Shop Drawings and Samples: Submit in accordance with Paragraph 6.17 of the Standard General and Supplementary Conditions, if any, and as follows, and coordinate with the Schedule of Submittals required in subparagraph 4 above.

Number of prints: **3**

Electronic format:  PDF  DWG  DXF  
 OTHER (as specified in Section 01 15 00)

Submit electronically:  by email  on CD  
 via digital document exchange system

- a. Complete the submittal transmittal form included as an attachment to this Section as is indicated, numbering each submittal consecutively. Assign resubmittals the same transmittal number as the original with a suffix of a sequential letter to indicate the resubmittal (e.g. the first resubmittal of submittal 25 would be number 25A.) Include only those documents previously issued under original transmittal number in resubmittals. Do not combine new submittals with resubmittals.
- b. Attach a transmittal form to each group of Shop Drawings, manufacturer's literature, equipment data and Samples submitted. Use a sufficient number of transmittal forms so that: items on a single transmittal form pertain to the same equipment item, specification section or element of Work; items on a single transmittal form are either original submittals or the same number resubmittal; and each Sample is listed on a separate transmittal form.
- c. Engineer to complete review in accordance with Paragraph 6.17.D. of the Standard General and Supplementary Conditions, if any.
- d. Submittals which do not have a fully completed transmittal form will be returned along with unreviewed attachments. Returned submittals, even though incomplete, will be counted as a submittal.
- e. Contractor shall reimburse Owner for Engineer's time beyond 3 resubmittals per Paragraph 6.17.E. of the Standard General and Supplementary Conditions.
- f. Submission of any Shop Drawing or Sample bearing Contractor's and Engineer's approval shall constitute a representation to Owner that the requirements of Paragraph 6.17 of the Standard General and Supplementary Conditions, if any, have been fulfilled.

6. Variations: Identify variations from Contract Documents and material and equipment or system limitations which may be detrimental to successful performance of the completed Work and identify reasons therefor in accordance with subparagraph 6.17.C.3 of the Standard General and Supplementary Conditions, if any.

a. Clearly identify requests for "Or-Equal" and substitute items and submit per Paragraph 6.05 of Standard General and Supplementary Conditions, if any, and subparagraph 1.02.C.5 above. Substitute items will not be considered when indicated or implied on Shop Drawing or material and equipment data submittals without separate written request, or when acceptance will require revision to the Contract Documents.

7. Manufacturers' Installation Instructions and Certificates: Submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing.

Number of prints:  3

Electronic format:  PDF  DWG  DXF  
 OTHER (as specified in Section 01 15 00)

Submit electronically:  by email  on CD  
 via digital document exchange system

a. Indicate special procedures, perimeter conditions requiring special attention and special environmental criteria required for application or installation.

b. Submit manufacturers' certificates for recent or previous test results on material or equipment, but they must be acceptable to Engineer and Owner. Indicate material or equipment conforms to or exceeds specified requirements and provide supporting reference date, affidavits, and certifications as appropriate.

c. Submit test results, data, and reports and certifications to Engineer based on tests performed. Submit test reports and certifications for independent testing services specified.

8. Record Documents and Closeout Submittals: submit in accordance with Paragraph 6.12 of the Standard General and Supplementary Conditions, if any, and Paragraph 1.03.D below.

a. *As-Builts for Material and Equipment*

Number of prints: 3

Electronic format:  PDF  DWG  DXF  
 OTHER (as specified in Section 01 15 00)

Submit electronically:  by email  on CD

via digital document exchange system

Indicate "As-Supplied" in revision block and sign. Show all changes and revisions to Final Completion per **Execution and Closeout Requirements**.

b. *Conformed to Construction Record Drawings*: Submit for Engineer's use in preparing final Record Drawings.

Number of prints: 3

Electronic format:  PDF  DWG  DXF  
 OTHER (as specified in Section 01 15 00)

Submit electronically:  by email  on CD

via digital document exchange system

Indicate "Conformed by Contractor to Construction Records" in revision block and sign. Show all changes and revisions to Final Completion per **Execution and Closeout Requirements**.

c. *Warranties and Guarantees*: Submit duplicate notarized copies of warranty documents which are executed and transferable from Subcontractors, Suppliers, and manufacturers. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of Warranty Period.

In PDF format:  on CD

via digital document exchange system

Submit 2 copies in ring binders with durable plastic covers and table of contents.

d. *Operation and Maintenance Data*

- 1) Submit draft of completed volumes 30 days prior to equipment startup. Revise content of all sets as required prior to final submission.

Number of hardcopies: 2

Submit electronically:  by email  on CD

via digital document exchange system in PDF format

- 2) Submit final volumes within 10 days after final inspection.

Submit electronically:  by email  on CD

via digital document exchange system in PDF format

Submit 2 copies of data in ring binders with durable plastic covers with 8 1/2 by 11 inch text pages. Cover: title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of Project, and subject matter of binder when multiple binders are required.

- a) Subdivide binder contents with permanent page dividers, logically organized as described below with laminated plastic tabs and clearly print the contents. Prepare a Table of Contents for each volume, with material, equipment, or system description identified, in three parts as follows.

**Part 1:** Directory, listing names, addresses, and telephone numbers of Contractor, Subcontractors, and major equipment Suppliers, and service representative.

**Part 2:** Operation and maintenance instructions arranged by system and subdivided by Specification section.

For each system, identify names, addresses, and telephone numbers of Subcontractors and Suppliers. Identify the following:

- Significant design criteria
- List of equipment with As-Builts certified "As-Supplied"
- Parts list for each component
- Operating instructions
- Inspection, maintenance and adjustment instructions for equipment and systems
- Lubrication and maintenance schedules
- Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents
- Troubleshooting guides
- Schematic diagrams

**Part 3:** Material Safety Data Sheets

**Part 4:** Other Project documents and certificates, including the following:

- Certificates
- Photocopies of warranties

See Section 01 15 00 for additional requirements.

**D. Closeout Procedures**

1. Substantial Completion shall have been achieved when the following has been completed and the requirements of Paragraph 14.04 of the Standard General and Supplementary Conditions, if any, have been met.
  - a. Work is complete, systems are successfully operating, and final testing has been successfully completed.

- b. A full inventory of the spare parts and special tools purchased by the Owner are replenished and in the custody of the Owner.
  - c. The Site has been restored to the satisfaction of the Owner.
  - d. An inspection of the Work has been completed by the Engineer and the Owner.
  - e. An updated Punch List is provided.
  - f. The Contractor's written warranty and guarantee has been submitted as required by Paragraph 16.19.D. of the Standard General and Supplementary Conditions, if any.
  - g. A Certificate of Substantial Completion has been provided in accordance with Paragraph 14.04.C. of the Standard General and Supplementary Conditions, if any.
2. The Contractor shall have sole care, custody, and control of the Work until achievement of Substantial Completion. During the period between Substantial Completion and the date for Final Completion, Contractor shall be given access to correct items on the Punch List and achieve Final Completion.
  3. The date of achieving Substantial Completion is the date set forth in the Certificate of Substantial Completion that is accepted and signed by the Owner.
  4. Final Completion shall have been achieved when the Work is complete, the requirements of Paragraphs 14.06 and 14.07 of the Standard General and Supplementary Conditions, if any, have been met, and when the following is complete.
    - a. Substantial Completion has been achieved and liquidated damages for failure to meet Substantial Completion Date have been paid.
    - b. All Work including Punch List Items has been completed.
    - c. Final cleaning has been conducted and Contractor equipment and supplies including waste materials have been removed from the Site and legally disposed of.
    - d. A full set of record documents have been submitted as specified in subparagraph 1.03.C.8 above and Contractor's written warranty and guarantee has been resubmitted if adjusted.
    - e. Inspections required by Laws and Regulations are complete. Certificates and permits to occupy and operate have been issued if required.

- f. Spare parts, maintenance and extra materials have been delivered in quantities specified to Project Site and stored as directed.
- g. A request for final inspection in accordance with Paragraph 14.06 of the Standard General and Supplementary Conditions, if any, has been submitted to the Engineer and the inspection has been completed and the results accepted by the Owner.
- h. A Certificate of Completion has been provided in accordance with Paragraph 14.07.B of the Standard General and Supplementary Conditions, if any.
- i. A Final Application for Payment has been submitted to the Engineer identifying total adjusted Contract Price, previous payments, and balance due along with required documentation in accordance with Paragraph 14.07.A. of the Standard General and Supplementary Conditions, if any.

#### 1.04 QUALITY REQUIREMENTS

##### A. Reference Standards and Regulatory Requirements

- 1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or Laws or Regulations of any governmental authority are used in accordance with Paragraph 3.02 of the Standard General and Supplementary Conditions, if any.
- 2. Acronyms and abbreviations used are defined in the applicable versions of the Encyclopedia of Associations published by Gale (part of Cengage Learning) generally available in large libraries and on the internet.

See Section 01 15 00 for additional requirements.

##### B. Qualifications

- 1. Meet or provide capability to meet the criteria specified in individual Specification sections in connection with various portions of the Work of the Contract Documents .
- 2. As a minimum, Contractor shall:
  - a. have been regularly and actively engaged in similar Work as described in the Contract Documents, operating under the same business name and business organization structure, for the last 5 years on at least 5 projects;

- b. have successfully completed at least 3 projects involving construction of similar facilities in the same state as the Project covered by the Contract Documents;
- c. have a full-time project manager in responsible charge of the Work with at least 10 years' experience as project manager on comparable projects; and
- d. carry at least the insurance coverage and amounts required in Article 5 of the Standard General and Supplementary Conditions, if any.

See Section 01 15 00 for additional requirements.

## 1.05 ATTACHMENTS

- A. Transmittal form

**END OF SECTION**



This page intentionally left blank

## SECTION 01 50 00

### TEMPORARY FACILITIES AND CONTROLS

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. This Section specifies temporary facilities and controls for execution of the Work put into place for use only during the period of construction, that will be removed when no longer required for construction operations, and applies to all Specifications and Drawings.
1. In certain paragraphs, checked items indicate requirements applicable to the Project.
  2. Provisions of this Section may be supplemented in the **Specific Project Requirements and Procedures** or other sections of Division 01.

##### B. Section Includes

##### 1.02 TEMPORARY CONSTRUCTION FACILITIES

Barriers  
Protection of Work  
Security  
Safety Facilities  
Access Roads  
Parking  
Field Offices  
Staging Area  
Project Identification  
Progress Cleaning and Waste Removal

##### 1.03 TEMPORARY UTILITIES

##### 1.04 TEMPORARY CONTROLS

Dust Control  
Water Control and Dewatering  
Erosion and Sediment Control  
Noise Control  
Pollution Control  
Traffic Regulation

##### 1.05 REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS

## 1.02 TEMPORARY CONSTRUCTION FACILITIES

### A. Barriers

1. Comply with the requirements of Paragraph 6.11. of the Standard General Conditions and Supplementary Conditions, if any.
2. Furnish barriers to prevent unauthorized entry to and clear delineation of construction areas, to allow for Owner's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations as recommended by OSHA and as otherwise required for the protection of life and property during construction.
3. Construct barricades and protective facilities in accordance with local and state regulations. Furnish and install signs, lights, reflectors, and such protection facilities as may be required.
4. Furnish barricades required by governing authorities for public rights of way.
5. Provide protection for plant life designated to remain. Replace damaged plant life.
6. Protect non owned vehicular traffic, stored materials, Site and structures from damage.
7. If required, furnish commercial grade, minimum 8 foot high chain link fence around construction Site. Equip with vehicular gates with locks.

### B. Protection of Work

1. Protect Work during working and non-working hours.
2. Provide special protection where specified in Specifications or Drawings and in accordance with manufacturer recommendations.
3. Furnish temporary and removable protection for installed equipment and material. Control activity in immediate Work area to minimize damage.
4. Protect exterior areas of Work from damage. Prohibit traffic from landscaped areas.

5. Buildings and Enclosures
  - a. Furnish protective coverings at walls, projections, jambs, sills, and soffits of openings and protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
  - b. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
6. Whenever gale or high winds are forecast, take measures to secure loose material, equipment or other items that could be blown and be damaged or cause damage. Do not leave such loose items unsecured at end of a working day. Particular attention shall be taken with scaffolding and items placed or stored on roofs or within a structure prior to being enclosed.
7. Provide for removal of snow and ice which may impede Work, damage the finishes or materials, be detrimental to workers, or impede trucking, delivery, or moving of materials at the Site, or prevent adequate drainage of the Site or adjoining areas.

**C. Security**

1. Provide protection to stored items, the Work and Owner's operations from unauthorized entry, vandalism, or theft, and against fire, storms and other losses during working and non-working hours.
2. Coordinate with Owner's security program.

**D. Safety Facilities**

1. Provide first aid and other safety facilities required by Laws and Regulations during working and non-working hours.

**E. Access Roads**

1. Construct and maintain temporary roads accessing public thoroughfares to serve construction area. Control dust and water.
2. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow.
3. Provide for emergency access and maintain throughout the Work Site.

**TEMPORARY FACILITIES AND CONTROLS**

01 50 00

**F. Parking**

1. Do not allow construction vehicle parking on existing pavement or sidewalks.
  - Available parking areas at the Project Site are identified on the Drawings
  - Off-Site construction parking area to be established at a location determined by Contractor.

**G. Field Offices**

- Delete - not required for the Project.
- Provide for the Project as follows.
  1. Furnish weather tight office with lighting, electrical outlets, heating, cooling and ventilating equipment, and equip with furnishings and accessories to accommodate supervision of Work, maintenance of records, and project meetings, including, but not limited to the following.
    - Desk and chairs (2 cushioned office desk chairs and 4 metal fold chairs)
    - Plan table with light and stool
    - 3 locking file cabinets
    - Hanging plan rack
    - Book case with 4 shelves
    - "All-in-one" color copier, printer, scanner and fax machine, capable of 11 by 17 output (OR separate color copier, color printer, color scanner, all capable of 11 by 17 output, and fax machine)
    - Paper stock for duration of Project
    - Telephone with answering machine (or telephone service with voicemail feature)
    - Refrigerator, microwave, and water cooler with bottled water supply for duration of Project
    - First aid kit
  - Furnish separate office for use by Engineer and Resident Project Representative similarly equipped with fully functional equipment and furniture.

2. Maintain utilities per Article 1.03 below for the duration of the Project.

3. Location of Field Offices

Locate as shown on the Drawings.

Locate as specified in the **Specific Project Requirements and Procedures.**

**H. Staging Area**

Locate as shown on the Drawings.

Locate as specified in the **Specific Project Requirements and Procedures.**

Owner is not providing a location for staging area. Determine and secure a location for staging area.

**I. Project Identification**

Delete - not required for the Project.

Provide for the Project

as specified in the **Specific Project Requirements and Procedures.**

as shown on the Drawings.

**J. Progress Cleaning and Waste Removal**

1. Comply with the requirements of Paragraph 6.11. B and C of the Standard General Conditions and Supplementary Conditions, if any.

2. Maintain areas free of waste materials, debris, and rubbish and maintain the Site in a clean and orderly condition.

3. Remove debris and rubbish from spaces and other closed or remote spaces before enclosing the space.

4. Collect and remove waste materials, debris, and rubbish from Site at least weekly and legally dispose off-Site.

### 1.03 TEMPORARY UTILITIES

#### A. Power service

- Delete - not required for the Project.
- Provide for the Project as follows.
  1. Arrange for and pay for required power service from local electric utility for duration of Project. Exercise measures to conserve energy. Furnish and install required equipment including pole of sufficient height to provide proper clearance and install weatherproof box of such size to house service disconnect, overcurrent protection, electric meter, and other required equipment.
    - Locate as shown on the Drawings.
    - Locate as designated by Owner.
- See the **Specific Project Requirements and Procedures** for additional requirements.

#### B. Telephone service and internet access to field offices

- Delete - not required for the Project.
- Provide for the Project as follows.
  1. Arrange for, pay for, and maintain telephone service and internet access to field offices at time of Project mobilization and for duration of Project.
  2. Obtain voicemail feature if answering machine not provided.
  3. Provide wireless, high speed broadband internet access via DSL, cable, satellite, or T1.
- See the **Specific Project Requirements and Procedures** for additional requirements.

**C. Water service**

Delete - not required for the Project.

Provide for the Project as follows.

1. Arrange for, pay for and maintain suitable quality water service as required for duration of Project.

Owner will provide water at no charge for construction.

See the **Specific Project Requirements and Procedures** for additional requirements.

D. Furnish and maintain required sanitary facilities and enclosures. Do not use existing facilities.

E. Furnish lighting for construction operations. Furnish lighting for exterior staging and storage areas and for security purposes. Maintain lighting and provide routine repairs.

F. Furnish heat devices and heat and cooling devices as required to maintain specified conditions for construction operations.

G. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

**H. Fire Protection**

1. Provide temporary fire protection equipment and services during construction per NFPA and local fire code and regulations, and fire marshal's requirements.

2. Use Work procedures that minimize fire hazards to the extent practicable and materials that are fire resistant where possible. Collect and remove combustible debris and waste materials from the Site each day. Store fuels, solvents, and other volatile or flammable materials away from the construction and storage areas in well-marked, safe containers in accordance with Laws and Regulations.

## 1.04 TEMPORARY CONTROLS

**A. Dust Control:** Execute Work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere. Utilize the application of sprinkled water to reduce the emission of air-borne soil particulates from the Project Site.

**B. Water Control and Dewatering**

- Delete - not required for the Project.
- Provide for the Project as follows.
- See the **Specific Project Requirements and Procedures** for additional requirements.

Grade Site to drain away from excavations to approved drainage collection facilities. Ensure collected surface drainage water meets permitted criteria for sediment content prior to discharge.

1. Maintain excavations free of water. Furnish, operate and maintain pumping equipment.
2. Dewater excavations and legally dispose of water in a manner that will not cause injury to public and private property.
3. Protect Site from puddling, ponding or running water.
4. Design, furnish, install, maintain, operate and remove temporary dewatering systems as required to lower and control water levels and hydrostatic pressures in excavations during construction; legally dispose of pumped water; construct, maintain, observe and, except where indicated or required to remain in place, remove dewatering equipment and system at the completion of construction.
  - a. Dewatering may include: lowering the water table, intercepting and collecting seepage which may penetrate the support of excavation, slopes or bottom of the excavation; increasing the stability of excavated slopes; preventing loss of material from beneath the slopes or bottom of the excavation; reducing lateral loads on sheeting and bracing; limiting horizontal displacements and stresses in support of excavation to tolerable and allowable levels; preventing displacements of existing structures, utilities, pavements, and sidewalks; improving the excavation and hauling

### TEMPORARY FACILITIES AND CONTROLS

characteristics of sandy soil; preventing rupture or heaving of the bottom of any excavation; and disposing of pumped water.

- b. *Normal dewatering* is defined as using conventional pumps installed in open excavations, ditches, or sumps to control water and allow for installation of the pipe in a dry trench.
- c. *Special dewatering* is defined as installing wellpoints, deep wells, or eductor and ejector systems to control groundwater and hydrostatic pressures to allow for installation of the work. Special dewatering includes design of the dewatering system by a Professional Engineer currently registered in the state where the Project is located in good standing, and conducting additional borings or subsurface explorations deemed necessary by the Contractor, and approved by the Engineer, to support design.
  - 1) For Special Dewatering, retain the services of a Professional Engineer currently registered in the state where the Project is located in good standing, experienced in design of dewatering systems, to independently evaluate the boring logs and other soils information available to determine those areas that will require special dewatering techniques and to design the required system. If, in the opinion of the Contractor or Contractor's Dewatering Professional Engineer, additional borings are needed to design special dewatering systems or determine areas where special dewatering techniques will be required, the Contractor shall retain and pay for the services of a boring subcontractor. Contractor's Dewatering Professional Engineer shall provide sufficient on-Site inspection and supervision to assure that the dewatering is carried out in accordance with the approved design.
- d. Design a dewatering system capable of:
  - 1) effectively reducing the hydrostatic pressure and lowering the groundwater levels to a minimum of 2 feet below excavation subgrade in the existing fills and any organic peat, and below the excavation subgrade in the existing organic silts/clays unless otherwise directed by the Engineer, so that all excavation bottoms are firm and dry;
  - 2) maintaining a dry and stable subgrade until the structures, pipes, appurtenances, and drainage pipe and structure bedding to be built therein have been completed to the extent that structures, pipes, and appurtenances will not be floated or otherwise damaged;

**TEMPORARY FACILITIES AND CONTROLS**

01 50 00

- 3) lowering of the groundwater level within the work area without adversely affecting existing structures, utilities, pavements, sidewalks or wells outside of the Work area.
- e. Submit the following.
- 1) Plans and description of the Normal and/or Special Dewatering systems, including the number, location and depth of wells, wellpoints or sumps; designs of filters to prevent pumping of fine soil; method and location for filtering, sedimentation tanks and legal disposal of pumped water; and flow capacity of proposed system, accounting for groundwater level relative to tide cycles if applicable
  - 2) Design calculations, description and complete layout drawings, stamped and signed by Contractor's Dewatering Professional Engineer, at least two weeks prior to scheduled installation of Special Dewatering system
  - 3) Locations of observation wells
  - 4) Records of pump operation and groundwater elevations
5. Dewatering Operations and Procedures
- a. Provide electrically operated dewatering equipment, powered with independent generators adequately sized to operate the dewatering system and capable of running on commercial power. Provide standby equipment independent of commercial power and provide for dewatering within 24 hours upon primary pump or power failure. No work shall be performed by the Contractor below the pre-construction groundwater level during dewatering system failure.
  - b. Provide suitable temporary pipes, flumes or channels for water that may flow along or across the Site of the Work.
  - c. Provide dewatering equipment with noise attenuation systems capable of meeting the governing noise regulation requirements.
  - d. Encapsulate the suction end of the pump with crushed stone, filter fabric, and other materials to minimize the amount of silt discharged to the amount allowed by the construction dewatering permit.
  - e. Do not operate equipment on paved surfaces to prevent damaging these surfaces.

**TEMPORARY FACILITIES AND CONTROLS**

**01 50 00**

- f. Locate dewatering facilities to prevent interference with utilities and construction work to be done by others.
  - g. For dewatering operations with relatively minor flows, direct pump discharges using filtration bag or system per Erosion and Sediment Control below, or pump into hay bale sedimentation traps lined with filter fabric. Filter water through the hay bales and filter fabric prior to seepage into storm drainage or any natural water course.
  - h. For dewatering operations with larger flows, provide pump discharges into a steel dewatering/sedimentation basin. Use steel baffle plates to slow water velocities, to increase the contact time, and allow adequate settlement of sediment prior to discharge into waterways, storm drainage or discharge point allowed by the construction dewatering permit.
  - i. Utilize silt sacks in catch basins when excess silt is suspended in the discharge water per Erosion and Sediment Control below.
  - j. If siltation basin is used, size to effectively filter for the volume and discharge rate of water anticipated without overflow.
  - k. Provide treatment necessary to prevent discharge of silty and/or contaminated ground water caused by the Contractor's operations, or any contaminated ground water that may pass from excavated surfaces and/or through the excavation support system selected by the Contractor.
  - l. Dispose of water pumped or drained from the Work in accordance with permit requirements and in a manner to prevent undue interference with other work or damage to adjacent properties, pavements and other surfaces, buildings, structures and utilities.
  - m. Obtain necessary regulatory approvals for the disposal of dewatering flows, including, among others, approval by the Environmental Protection Agency under the National Pollutant Discharge Elimination System (NPDES) program for construction dewatering activities. Submit the completed and approved construction dewatering permit to the Engineer immediately upon receipt.
6. Special Dewatering
- a. Use Special Dewatering as necessary if Normal Dewatering methods are inadequate to ensure dry and stable excavation subgrade conditions.

**TEMPORARY FACILITIES AND CONTROLS**

**01 50 00**

- b. Special Dewatering techniques may consist of one- or two-stage wellpoint systems, deep wells, or eductor and ejector type systems. Design with suitable screens to prevent pumping of fines and to address specified Work Site conditions.
- c. In areas requiring special dewatering, lower the groundwater level to a minimum of 2 feet below the existing fill and/or organic peat subgrades or to the excavation subgrade for organic silt/clay subgrades prior to any installation and maintain that groundwater level until the excavation has been backfilled and provide monitoring by Contractor's Dewatering Professional Engineer to ensure conformance with the requirements herein.
- d. Furnish materials and install at least two observation wells at each excavation area. The location of the wells shall be proposed in the field by the Contractor's Dewatering Professional Engineer and reviewed and approved by the Engineer.

**C. Erosion and Sediment Control**

- Delete - not required for the Project.
- Provide for the Project as follows.
- See the **Specific Project Requirements and Procedures** for additional requirements.
  - 1. Plan and execute construction using methods to control surface drainage from cuts and fills, from borrow and waste disposal areas and prevent erosion and sedimentation.
  - 2. Submit erosion and sediment control plan to Engineer prior to the start of construction.
  - 3. Install erosion and sediment controls as may be shown on the Drawings and as required by Laws and Regulations. Install additional erosion and sedimentation control measures beyond those shown on the Drawings as necessary to stabilize the Site. Coordinate temporary erosion controls with permanent erosion controls to the extent practical. Provide and maintain devices to control erosion, siltation, and sedimentation that occur during construction operations. Undertake reasonable precautions and measures to avoid erosion of soil and to prevent silting of drainage ditches, storm sewers, rivers, streams, and lakes.

**TEMPORARY FACILITIES AND CONTROLS**

01 50 00

4. Employ pollution prevention measures, erosion and sedimentation control before, during, and after soils are exposed. Implement measures prior to soil disturbance or soil storage to the extent possible to ensure that such measures are in place before activity occurs and employ additional measures as the Work progresses. Implement and maintain as necessary until the Site is permanently stabilized.
5. Perform inspections of disturbed soil areas, material storage areas exposed to precipitation, and erosion control measures with Engineer a minimum of once every 14 days and also within 24 hours after any storm event greater than 0.5-inches of rainfall. Immediately correct deficiencies in the erosion control measures identified or indicated by failures or erosion by implementing additional measures or different techniques to correct and prevent subsequent erosion at no additional cost to Owner.
6. In the event that silt or debris breaches erosion control, immediately remove and clean silt or debris from drainage ditches and storm sewers and revise erosion control measures as required by the Conservation Commission or the Engineer. Should silt or debris breach erosion controls and reach rivers, streams or lakes, immediately notify local, state or Federal representatives as required and implement required remediation methods at no additional cost to Owner.
7. Limit duration of the exposure of soils on embankments, excavations, and graded areas to a minimum.
8. Provide temporary measures such as berms, dikes and drains to prevent water flow. Install erosion control measures in any ditch, swale or channel before water is allowed to flow in the waterway. Handle water pumped from trenches to minimize discharge of silty water to the maximum extent practicable.
9. Stabilize storm drain outfalls as shown on the Drawings before the discharge points become operational. Install inlet protection immediately upon construction of culverts.
10. Stabilize disturbed areas with temporary and permanent erosion control practices as soon as practicable, but no more than 14 days after construction activity on a particular portion of the Site has temporarily or permanently ceased. Exceptions to this time requirement include: a) where construction activities will resume on the particular portion of the Site within 21 days; and b) where snow cover delays initiation of stabilization measures.

**TEMPORARY FACILITIES AND CONTROLS**

01 50 00

11. Place stockpiled topsoil on the Site away from natural drainages, in piles with side slopes of 50 percent to 70 percent. Install siltation fence around the base of the pile to prevent eroding soil from washing into drainages. Cover topsoil piles which are to remain for a period of 21 days or more with temporary seed and mulch immediately following stockpiling.
12. Conduct pavement sweeping to remove sediment and soil debris accumulation on pavement resulting from construction activity
13. Siltation/Silt Fence
  - a. Filter fabric: suitable for erosion control.
  - b. Wood posts: oak, 2 inches by 2 inches in section, and at least 4.5 feet in length.
  - c. Erosion control fencing: heavy-duty filter fabric towed into the existing soil as shown on the Drawings.
  - d. Construct as shown on Drawings or as directed by Engineer. Install parallel to contours where possible, prior to Site clearing and grading activities.
    - 1) Dig a 6 inch by 6 inch minimum trench where the fence is to be installed. Position the fence in the trench with the fence posts set at 8 feet on center (maximum). Curve ends of fence uphill to prevent flow around ends.
    - 2) Staple sedimentation control fabric and the industrial netting to each post. When joints are necessary, splice filter fabric together only at support posts with 6-inch overlap and securely seal.
    - 3) Bury lower edge of fabric at least 6 inches below ground surface to prevent underflow. Backfill trench and compact soil over filter fabric.
    - 4) Installed height: minimum 2.5 feet and 36 inches maximum.
    - 5) Inspect frequently; repair or replace any damaged sections.
14. Temporary Erosion Control Matting
  - a. Rolled matting blanket consisting of curled wood excelsior, coconut fiber, straw or paper bound with a weave of twisted craft paper, cotton cord or plastic mesh.

- b. Provide staples for fastening matting to the ground. Staples: fabricated in a "U" shape from 11 gage or heavier stiff steel wire, 6 to 12 inches in length and 1 to 2 inches across.
- c. Surface Preparation and Installation
  - 1) Conform to grades and cross sections for slopes and ditches shown on the Drawings. Finish to a smooth and even condition with all debris, roots, stones, and lumps raked out and removed. Loosen soil surface to permit bedding of the matting.
  - 2) Unless otherwise directed, apply seed prior to placement. When directed, spread additional seed over matting, particularly at those locations disturbed by building slots. Press matting onto the ground with a light lawn roller or by other similar means.
  - 3) Bury edges of matting around the edges of catch basins and other structures.

15. Seeding

- a. Select seed variety and applied rates based upon the date of application per the following table. Equivalent seed mixture based on suitability for use in controlling erosion of the various soil types and slopes may be used as approved by the Engineer.

<b>Dates</b>	<b>Seed</b>	<b>Applied Rate (pounds per 1,000 feet<sup>2</sup>)</b>
4/1 to 7/1 8/15 to 9/15	Oats	1.8
4/1 to 7/1	Annual Ryegrass	0.9
5/15 to 8/15	Sundangrass	0.9
9/15 to 10/15	Winter Ryegrass	2.6

- 1) Sow seed at the rates indicated, on the pure live seed basis.
- 2) Mulch areas where temporary seeding has been applied. Do not mulch seeded areas where matting will be immediately installed. If temporary seeding does not achieve adequate growth by November 1, apply an additional layer of mulch.
- 3) Mulch temporarily or permanently seeded areas, areas which cannot be seeded within the recommended seeding dates, and any soil stockpile areas, immediately following

seeding. Straw or hay mulch, wood fiber mulch, and hydromulch are recommended.

16. Sod: grown from certified seed of adapted varieties to produce high quality sod free of any serious thatch, weeds, insects, diseases and other pest problem, be at least one year old and not older than three years, and cut with a 1/2 inch to 1 inch layer of soil.
  - a. Lay sod strips on the prepared soil, perpendicular to the slope or direction of water flow, starting at the lowest elevation. Butt the edges and ends of the sod strips together and tamp or roll. Stagger joints.
  - b. Staple sod strips at ends and at 3-foot intervals along the center of the strip.
  - c. Irrigate sodded area immediately after installation.

17. Catch Basin Silt Sacks

- a. Style: Silt Sack Regular Flow.
- b. Test Method: ASTM D-4884 165.0 lbs./inch.
- c. Silt sack seams: certified average wide width strength.
- d. Meet the following ASTM D-4884 standards. Properties are Minimum Average Roll Values (MARV).

Property	Test Method	Units	Test Results
Grab Tensile	ASTM D-4632	lbs.	315x300
Grab Elongation	ASTM D-4632	%	15x15
Puncture	ASTM D-4833	lbs.	125
Mullen Burst	ASTM D-3786	psi	650
Trapezoid Tear	ASTM D-4533	lbs	120x150
UV Resistance	ASTM D-4355	%	90
Apparent Opening	ASTM D-4751	US Sieve	40
Flow Rate	ASTM D-4491	gal/min/ft <sup>2</sup>	40
Permittivity	ASTM D-4491	sec -1	0.55

- 1) Utilize silt sacks in catch basins as required when excess silt is suspended in discharge water.

18. Filtration Bag or System for Discharge from Excavation Dewatering

- a. Meet the following standards. Properties are Minimum Average Roll Values (MARV).

Property	Test Method	Units	Test Results
Flow Rate	ASTM D-4491	gal/min/ft <sup>2</sup>	40
Permittivity	ASTM D-4491	sec -1	0.55

- b. For discharge from excavation dewatering, install filtration bag or system or dewatering siltation basin constructed of a hay bale barrier lined with filter fabric sized to handle the volume of dewatering without overflowing.
19. Compost Filter Socks
- a. Furnish and install biodegradable mesh “socks” filled with mature, clean compost per EPA National Pollutant Discharge Elimination System (NPDES) specifications.
    - 1) Install per EPA and manufacturers recommendations.
    - 2) Install parallel to contours where possible. Stake socks as needed to stabilize. Inspect frequently and repair as necessary.
20. Provide detention basins or water filtration systems for dewatering and coordinate locations with Engineer. See Dewatering in Paragraph B. above.
21. Other Temporary Measures
- a. Provide and maintain temporary slope drains as required.
  - b. Employ other temporary erosion control measures as directed by the Engineer or local Conservation Commission.
22. Maintenance
- a. Inspect erosion control practices immediately after each rainfall and at least daily during prolonged rainfall or snowmelt for damage. Make appropriate repairs or replacement until Final Completion at no additional cost to the Owner.
  - b. Remove silt from siltation fence and/or haybale when it has reached one-quarter of the bale and/or fence height, or prior to expected heavy runoff or siltation.
  - c. Repair matting if any staples become loosened or raised, or if any matting becomes loose, torn, or undermined, make satisfactory repairs immediately.

- d. Maintain areas mulched or matted until Final Completion, at no additional cost to the Owner.
- e. Maintain sediment basins by removing silt that reaches a depth of over one foot, at no additional cost to the Owner, until Final Completion.

23. Removal of Temporary Erosion Control

- a. Remove temporary materials and devices upon completion of the Work when permanent soil stabilization has been achieved. Re-use materials in good condition if approved by Engineer.
  - 1) If silt socks are used, remove in paved areas or cut open and disperse media in unpaved areas.
- b. Level and grade to preconstruction conditions and to the extent required to prevent any obstruction of the flow of water or any other interference with the operation of or access to the permanent works.
- c. Remove siltation fences only when adequate grass growth has been established.
- d. Repair areas damaged by silt fences and hay bales to preconstruction conditions to the satisfaction of the local Conservation Commission and the Engineer.
- e. Remove unsuitable materials from Site and dispose of in a lawful manner.

**D. Noise Control**

1. Provide methods, means, and facilities to minimize noise from construction operations.
2. Provide noise attenuation systems capable of meeting the Department of Environmental Protection Division of Air Quality Control regulations governed by the following policy:

*"A source of sound will be considered to be violating the Department's noise regulation (310 CMR 7.10) if the source:*

- *Increases the broadband sound level by more than 10 dB(A) above ambient, or*
- *Produces a "pure tone" condition when any octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by 3 decibels or more.*

**TEMPORARY FACILITIES AND CONTROLS**

01 50 00

*"These criteria are measured both at the property line and at the nearest inhabited residence. Ambient is defined as the background A-weighted sound level that is exceeded 90% of the time measured during equipment operating hours. The ambient may also be established by other means with the consent of the Department."*

3. Construct sound enclosures or utilize other noise reduction techniques if the equipment does not meet the noise level requirements.

**E. Pollution Control**

- Delete - not required for the Project.
- Provide for the Project as follows.
- See the **Specific Project Requirements and Procedures** for additional requirements.

1. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

a. Water Pollution Control

- 1) Assure that sediment, debris, petroleum, chemicals, or other contaminants will not enter existing drainage facilities and channels. Use construction methods that will prevent entrance of pollutants and wastes into existing streams, rivers, lakes, and flowing and dry watercourses.
- 2) Obtain legal disposal sites and dispose of pollutants and wastes in a legal manner.
- 3) Respond immediately to emergencies as directed when water quality of existing streams, rivers, lakes and flowing and dry watercourses is threatened. Take corrective action to remove or contain pollutants until a permanent solution is determined.

b. Air Pollution Control

- 1) Equipment and vehicles that exhibit excessive exhaust emissions due to poor engine adjustments or inefficient operation will not be permitted to operate until corrective repairs or adjustments are made.

**TEMPORARY FACILITIES AND CONTROLS**

01 50 00

- 2) Burning of materials from clearing or grubbing operations, combustible construction materials, and rubbish will not be allowed.

**F. Traffic Regulation**

- Delete - not required for the Project.
- See the **Specific Project Requirements and Procedures** for additional requirements.
- Provide for the Project as follows.
  1. Control and maintain traffic within the Project area.
    - Submit traffic control plans and coordinate with Owner and local agencies. Submit plan for traffic control to Owner for review 14 days in advance of any Work within public right-of-way, street closure or detour.
    - A traffic control plan is not required for the Project.
  2. Provide and maintain traffic control and maintenance devices in accordance with Part 6, Temporary Traffic Control, of the "*Manual on Uniform Traffic Control Devices for Streets and Highways*", published by the U.S. Department of Transportation, Federal Highway Administration and other applicable codes and standards as specified. Operate devices 24 hours per day as required.
  3. Provide for access by emergency vehicles, such as police, fire, and disaster units at all times. Contractor shall be liable for damages resulting from failure to provide such access.
  4. During construction hours, traffic flow must be controlled by uniformed traffic police officers or other traffic controllers allowed by Laws and Regulations. The services of traffic controllers shall in no way relieve the Contractor of its responsibilities under the Contract.
  5. Maintain minimum of one moving lane on roadways at all times.
    - a. Where detours are permitted, provide necessary barricades, flashers, flashing arrows and signs in accordance with referenced Manuals and Laws and Regulations.

- b. Provide gravel borrow and bituminous concrete to maintain temporary passable travel lane ramps, temporary bridging, steel plates, temporary pavement, wood-framed walkways, caution, safety and other necessary signs directing the pedestrian and vehicular traffic towards unblocked and safe areas.
  6. Provide safe access/egress to businesses and abutting property owners within the Project area. In areas where the construction activity is in progress, install directional signs in front of businesses indicating "OPEN FOR BUSINESS" or similar for guidance of customers.
    - a. Certain construction operations such as utility work and roadway/sidewalk reconstruction may restrict access/egress on some roads and to businesses and abutting property owners. Under these circumstances, schedule operations during off-peak hours or late evenings with Owner approval so that a particular work activity can be completed in the shortest possible time.
    - b. Provide 48 hours notice to businesses and abutting property owners when access/egress will not be available or restrictions will exist.
  7. Exercise particular care to establish and maintain such methods and procedures that will not create hazards.
    - a. Remove or properly cover traffic control, safety devices and/or signs having messages that are irrelevant to normal traffic conditions at the end of each Work period. Keep signs clean at all times and provide that legends are distinctive and unmarred.
    - b. Place excavated material and construction equipment so that vehicular and pedestrian traffic is maintained at all times unless road closure permit is obtained. If the Contractor's operations cause traffic hazards, implement appropriate safety measures immediately.
    - c. In areas of high pedestrian and vehicular traffic volume, the remove waste materials and construction equipment from the Work Site on a daily basis. Do not park construction equipment overnight on the Site or the adjacent roads unless permitted by Owner.
    - d. Provide night watchmen where special hazards exist.
  8. Post signage clearly stating that any vehicle impeding the progress of construction will be towed at the vehicle owner's expense. Towing charges incurred by Owner for Contractor's failure to post such signs will be borne by the Contractor.

**TEMPORARY FACILITIES AND CONTROLS**

01 50 00

**1.05 REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS**

- A. Remove temporary utilities, equipment, and facilities before Final Application for Payment inspection.
- B. Remove temporary underground installations and grade Site as indicated. Clean and repair damage caused by installation or use of temporary utilities, facilities, and controls.
- C. Restore existing facilities and areas used during construction to original condition. Restore permanent facilities used during construction to specified condition.

**END OF SECTION**

## SECTION 01 60 00

### PRODUCT REQUIREMENTS

#### PART 1 – GENERAL

#### PART 2 – SUMMARY

- A. This Section specifies general requirements for products, materials and equipment and applies to all Specifications and Drawings.
1. Provisions of this Section may be supplemented in individual Specification sections.
- B. Section Includes**
- 1.02 SOURCE QUALITY CONTROL  
General  
Independent Testing Agency Certification  
Factory Testing
  - 1.03 PRODUCT REQUIREMENTS  
General  
Transportation and Handling  
Storage and Protection
  - 1.04 WARRANTIES

#### PART 3 – SOURCE QUALITY CONTROL

- A. General**
1. Subject material and equipment furnished under the Contract Documents to a complete factory testing program as specified.
  2. Shop Drawings and submittals: reviewed by Engineer before initiating testing program.
  3. Perform checks and tests in accordance with manufacturer's recommendations and referenced standards.
  4. Evaluate test results and advise Owner immediately of any discrepancy between test results and test limits or the failure of any device or system under test. Include test limits for acceptability applicable to each test on the certified test records.
  5. Record test information, including the evaluation of testing results, on forms approved by Owner and Engineer.

**B. Independent Testing Agency Certification**

1. If specified, furnish certificates from an independent testing agency.
2. Independent testing agency to certify that material and equipment components have been examined and tested and are in conformance with the requirements specified in the Contract Documents.
3. Take Samples in accordance with the requirements specified in the Contract Documents, as selected by Owner or independent testing agency. Furnish and ship at no additional cost to Owner.

**C. Factory Testing**

1. Provide 14 days prior written notice of factory inspections and tests to Owner and Engineer.
2. If failure to give proper written notice results in material and equipment being assembled or covered before a factory inspection or test, make material and equipment ready for inspection or test and reassemble or recover at no additional cost to Owner.
3. Owner may inspect any portion of material and equipment furnished at any reasonable time during manufacture and may witness testing of any portion of material and equipment wherever located. Owner and Engineer to witness tests only.
4. Furnish, set up and operate test equipment and facilities.
5. If facilities for conducting required tests are unavailable to the manufacturer, conduct tests elsewhere or have them performed by an independent agency approved by Owner.
6. Protect material and equipment after testing and checking to provide that subsequent testing of other equipment or systems does not disturb, damage or otherwise interfere with functional capability of material and equipment.
7. Assume responsibility for protection of material and equipment and safety of all personnel during factory testing program.
8. Grounds for rejection: failure to withstand tests; failure to meet ratings; failure to meet applicable standards.

9. In the event of failure
  - a. Submit revisions of documents requiring approval for changes required for rectification.
  - b. Obtain Owner's and Engineer's approval before making such changes.
  - c. Provide written details of any changes to be made not requiring approval.
  - d. Notify Owner and Engineer in writing before retesting.
  - e. Furnish new material and equipment which meets requirements of the Specifications if rejected material and equipment cannot be rectified to satisfaction of Owner and Engineer.
  - f. Retest after rectification in presence of Owner or Engineer.
10. Assume responsibility for all costs, including, but not limited to: loss or damage to materials and equipment resulting from testing; retesting; rectification; new material and equipment to replace damaged or non-rectifiable material and equipment; removal, furnishing, transportation, unloading, and installation of replacement material and equipment; and witness of testing by Owner and Engineer including travel, lodging, meals, and payroll.
11. Submit certified test reports which define tests, list results, and are signed by Contractor's representative, and copies of raw data collected during tests. Submission of certified test reports does not relieve Contractor of responsibility for material and equipment meeting requirements of the Contract Documents after installation.

#### **PART 4 – PRODUCT REQUIREMENTS**

##### **A. General**

1. Products include new material and equipment incorporated into the Work and may also include existing material and equipment required for reuse. This does not include machinery and equipment used for preparation, fabrication, conveying, installation and erection of the Work.
2. Do not use materials and equipment removed from existing Work Site, except as specifically permitted.
3. Provide complete with accessories, trim, finished, safety guards, and other devices and details need for a complete installation and for the intended use or effect.

4. Provide standard products which have been produced and used successfully on other similar projects for similar applications. Provide products which are likely to be available to Owner in the future for items required for maintenance and repair or replacement Work.
5. Furnish interchangeable components of the same manufacturer, for similar components.

**B. Transportation and Handling**

1. Transport and handle material and equipment in accordance with manufacturer's instructions.
2. Notify Engineer and Owner in writing upon acceptance of a shipment.
3. Promptly inspect shipments to assure that material and equipment comply with requirements, quantities are correct, and material and equipment are undamaged.
4. Furnish equipment and personnel to handle material and equipment by methods to prevent soiling, disfigurement, or damage.
5. Uncrate equipment and dispose of packing material properly.

**C. Storage and Protection**

1. Store and protect material and equipment in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive material and equipment in weather tight, climate controlled enclosures.
2. For exterior storage of fabricated material and equipment, place on sloped supports, above ground.
3. Provide for bonded off Site storage and protection when Site does not permit on Site storage or protection.
4. Cover material and equipment subject to deterioration with impervious sheet covering. Furnish ventilation to avoid condensation or potential degradation of material and equipment.
5. Store loose granular materials on solid flat surfaces in a well-drained area. Avoid mixing with foreign matter.
6. Furnish equipment and personnel to store material and equipment by methods to prevent soiling, disfigurement, or damage.

7. Arrange storage of material and equipment to permit access for inspection. Periodically inspect to assure material and equipment are undamaged and are maintained in acceptable conditions.
8. After receipt of material and equipment, assume responsibility for loss and damage including but not limited to breakage, corrosion, weather damage, and distortion.

**PART 5 – WARRANTIES**

- A. Provide warranties for equipment and material in accordance with Paragraphs 6.19 and 14.03 of the Standard General and Supplementary Conditions, if any.
- B. Provide extended or special warranties as indicated in individual Specification sections.

**END OF SECTION**