

due for extra labor and materials furnished to the Contractor, less any amount (i) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the Contractor in the sworn reply; provided that the Awarding Authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by M.G.L. c 30, §39F. The Awarding Authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made.

The Awarding Authority shall forthwith deposit the amount deducted from a direct payment in an interest-bearing joint account in the names of the Contractor and the Subcontractor in a bank in Massachusetts selected by the Awarding Authority or agreed upon by the Contractor and the Subcontractor and shall notify the Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in a Contract between the Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to the provisions herein shall be made out of amounts payable to the Contractor at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the Contractor and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the Awarding Authority to the Contractor to the extent of such payment.

The Awarding Authority shall deduct from payments to a Contractor amounts which, together with the deposits in interest-bearing accounts, are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the Contractor.

If the Subcontractor does not receive payment as provided herein or if the Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for herein, the Subcontractor may demand direct payment by following the procedure provided for in M.G.L. c.30, §39F, and the Contractor may file a sworn reply as provided in that same Sub-subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment

shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the Contractor. Thereafter the Awarding Authority shall proceed as provided in M.G.L. c.30, §39F.

Any assignment by a Subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of M.G.L. c.149, §29 shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the Awarding Authority or which are on deposit pursuant to the provisions herein shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) "Subcontractor" as used in this section (i) for contracts awarded as provided in sections forty-four A to forty-four H, inclusive, of chapter one hundred forty-nine shall mean a person who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the awarding authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the general contractor

A Contractor or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited pursuant to M.G.L. c.30, §39F by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit by a petition in equity in the superior court against the Awarding Authority and the Contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. M.G.L. c.231, §§59 and 59B shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to §§59 and 59B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors of the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a Subcontractor filing a demand for direct payment for which no funds due the Contractor are available for direct payment shall have a right to file a petition in a court of equity against the Awarding Authority claiming a demand for direct payment is premature, and such Subcontractor must file the petition before the Awarding Authority has made a direct payment to the Subcontractor and has made a deposit of the disputed

portion.

In any petition to collect any claim for which a Subcontractor has filed a demand for direct payment the court shall, upon motion of the Contractor, reduce by the amount of any deposit of a disputed amount by the Awarding Authority as provided herein any amount held under a trustee writ or pursuant to a restraining order or injunction.”

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

SC-15.01 Delete paragraph 15.01 A of the General Conditions in its entirety and insert in its place the following :

"15.01-A The Owner may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as it may determine to be appropriate for the convenience of the Owner; provided however, that if there is a suspension, delay or interruption for fifteen (15) days or more or due to a failure of the Owner to act within the time specified in this Contract, the Owner shall make an adjustment in the Contract Price for any increase in the cost of performance of this Contract but shall not include any profit to the Contractor on such increase; and provided further, that the Owner shall not make any adjustment in the Contract Price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this Contract provides for an equitable adjustment of the Contract Price under any other Contract provisions.

The Contractor shall submit the amount of said claim to the Owner in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this Contract and, except for costs due to a suspension order, the Owner shall not approve any costs in the claim incurred more than twenty (20) days before the Contractor notified the Owner in writing of act or failure to act involved in the claim.

15.01-A-1. The above revisions contained in paragraph under SC-15.01 are in compliance with Massachusetts General Laws Chapter 30, Section 39O."

SC-15.02

Delete paragraph 15.02 A, B, C, D, E and F of the General Conditions in their entirety and insert in its place the follow provision:

“15.02-A If the Contractor persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if the Contractor fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction or disregards an instruction, order or decision of the Engineer, or otherwise is guilty of a substantial violation of any provision of the Contract, then the Contractor shall be in default, and the Owner may, without prejudice to any other right or remedy and upon written notice to the Contractor of such default, take possession of all materials, tools, appliances, equipment, construction equipment and machinery and vehicles, offices and other facilities on the Project site, and all materials intended for the Work, wherever stored, and, if such default is not cured within seven (7) days after such notice, may terminate the employment of the Contractor, accept assignment of any or all subcontracts, and finish the Work by whatever method the Owner may deem expedient. The Owner shall be entitled to collect from the Contractor all direct, indirect, and consequential damages suffered by the Owner on account of the Contractor's default, including without limitation additional services and expenses of the Engineer made necessary thereby. The Owner shall be entitled to hold all amounts due the Contractor at the date of termination until all of the Owner's damages have been established, and to apply such amounts to such damages.

If, after final completion of the Work, the Owner determines that the unpaid amount (if any) due to the Contractor for the portion of the Work performed by the Contractor in accordance with the Contract exceeds any costs and damages incurred by the Owner as the result of the Contractor's breach of this Contract, such excess shall be paid to the Contractor. If the costs and damages incurred by the Owner as the result of the Contractor's breach of this Contract exceeds the unpaid amount (if any) due to the Contractor for the portion of the Work performed by the Contractor, the Contractor shall promptly pay such excess upon written demand by the Owner. In the event of a termination of the Contract pursuant to this Article, the Owner and the Contractor shall forthwith return to the other all papers, materials and other properties of the other held by each for the purposes of execution of the Contract. In addition, each party will make reasonable efforts to assist the other party in an orderly termination of this Contract.”

15.02-B If the Contractor is determined by a court of competent jurisdiction to be bankrupt, or if any assignment shall be made by the Contractor or by any guarantor of the Contractor for the benefit of creditors, or if a petition is filed by the Contractor or by guarantor of the Contractor for adjudication as a bankrupt, or for reorganization or an arrangement under any provision of the Bankruptcy Act as then in force and effect, or in an involuntary petition under any of the provisions of the Bankruptcy Act is filed against the Contractor and such involuntary petition is not discharged within ninety (90) days thereafter, in any event the Owner may terminate this Contract upon written notice to the Contractor.”

SC-15.03 Delete paragraph 15.03 of the General Conditions in its entirety and insert in its place the following:

“15.03 OWNER’S TERMINATION FOR CONVENIENCE

The Owner may, at any time, terminate the Contract for the Owner’s convenience and without cause. Upon receipt of written notice from the Owner of such termination for the Owner’s convenience, the Contractor shall:

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and/or purchase orders.

In the event of such termination for the Owner’s convenience, the Contractor shall be compensated only for Work performed and expenses incurred in accordance with the Contract prior to termination, together with reasonable demobilization expenses (provided that there are appropriated Project funds available for such demobilization expenses). The Owner, however, shall not compensate the Contractor for lost profits, overhead expenses, termination expenses, or other such costs or expenses.”

ARTICLE 16 - DISPUTE RESOLUTION

SC-16.01 Delete paragraph 16.01 A, B and C of the General Conditions in their entirety and insert in its place the following:

“Any Claim arising out of or related to the Contract, except those waived as provided in herein, shall, after final decision by the Engineer or thirty (30) days after submission of the Claim to the Engineer, be subject to mediation as a condition precedent to the institution of legal or equitable proceedings by either party.

The Owner and Contractor shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be conducted under the auspices of the American Arbitration Association in accordance with the most current version of the Association’s Construction Industry Mediation Rules in effect at the time the request for mediation is filed. Request for mediation shall be filed in writing with the other party to this Contract and with the American Arbitration Association. All necessary parties may be brought into such mediation.

The parties shall bear equally the mediator’s fee and any filing fees required for the mediation. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Written Contracts reached in mediation shall be enforceable as written settlement Contracts in any court having jurisdiction thereof. In the event that any such claim, dispute or controversy is not resolved through the mediation process, either party is free to pursue any such claim, dispute or other matter in an appropriate court proceeding.

This paragraph 16.01 shall not prohibit the initiation of legal proceedings or equitable proceedings in circumstances where mediation will not be completed before the expiration of the applicable time within which to initiate legal proceedings or equitable proceedings. Under no circumstances shall either party call for mediation of any claim or dispute arising out of this Contract after such period of time as would normally bar the initiation of legal proceedings to litigate such a claim or dispute under the laws of the Commonwealth of Massachusetts.

This Paragraph 16.01 shall survive completion or termination of the Contract.”

ARTICLE 17 Renumber Article 17 as Article 19, and renumber paragraphs 17.01 thru 17.06 as paragraphs 19.01 thru 19.06.

Insert new paragraphs 17.01 through 17.06 in the General Conditions:

“ARTICLE 17 - CONTRACTOR'S ACCOUNTING METHOD
REQUIREMENTS

(Statutory reference: M.G.L. c.30, §39R)

SC_17.01*-SC-17.06* Add new paragraphs 17.01 through 17.06, to the General Conditions as follows:

“17.01-A* The words defined herein shall have the meaning stated below whenever they appear in this Article 17:

17.01-A.1 "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to §39M of c.30, §§44A-44H inclusive, of c.149, §11C of c.25, or §§44-58, inclusive, of c.7C, which is for an amount or estimated amount greater than one hundred thousand dollars.

17.01-A.2 "Contract" means any contract awarded or executed pursuant to §§44-58, inclusive of c.7C, and any contract awarded or executed pursuant to §11C of c.25A, §39M of c.30, or §§44A-44H, inclusive, of c.149, which is for an amount or estimated amount greater than one hundred thousand dollars.

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

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

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

17.01-A.6 "Accountant's Report", when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which s/he has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion

cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a signed statement by the responsible corporate officer attesting that management has fully disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the Contractor.

17.01-A.7 "Management", when used herein, means the chief executive officers, partners, principals, or other person or persons primarily responsible for the financial and operational policies and practices of the Contractor.

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

17.02-A Every Contract or contract awarded or executed pursuant to §§44-58, inclusive of c.7C, §11C of c.25A, and pursuant to §39M of c.30 or to §§44A-44H, inclusive, of c.149, shall provide that:

17.02-A.1 The Contractor shall make, and keep for at least six (6) years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor.

17.02-A.2 Until the expiration of six (6) years after final payment, the Awarding Authority, Office of Inspector General, and the Commissioner of Capital Asset Management and Maintenance shall have the right to examine any books, documents, papers or records of the Contractor or of his/her Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his/her Subcontractors.

17.02-A.3 If the Contract is a contract as defined herein, the Contractor shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the Awarding Authority, including in his/her description the date of the change and reasons therefor, and shall accompany said description with a letter from the Contractor's independent certified public accountant approving or otherwise commenting on the changes.

17.02-A.4 If the Contract is a contract as defined herein, the Contractor has filed a statement of management on internal accounting controls as set forth in Paragraph 17.03 below prior to the execution of the contract.

17.02-A.5 If the Contract is a contract as defined herein, the Contractor has filed prior to the execution of the contracts and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in Paragraph 17.05 below.

17.03-A Every Contractor awarded a contract shall file with the Awarding Authority a statement of management as to whether the system of internal accounting controls of the Contractor and its subsidiaries reasonably assures that:

17.03-A.1 transactions are executed in accordance with management's general and specific authorization;

17.03-A.2 transactions are recorded as necessary:

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

(ii) to maintain accountability for assets;

17.03-A.3 access to assets is permitted only in accordance with management's general or specific authorization; and

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

17.04-A Every Contractor awarded a contract shall also file with the Awarding Authority a statement prepared and signed by an independent certified public accountant, stating that he or she has examined the statement of management on internal accounting controls, and expressing an opinion as to

17.04-A.1 whether the representations of management in response to this paragraph and Paragraph 17.02 above are consistent with the result of management's evaluation of the system of internal accounting controls; and

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

17.05-A Every Contractor awarded a contract by the Commonwealth or by any political subdivision thereof shall annually file with the Commissioner of Division of Capital Asset Management during the term of the Contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statement shall be made available to the Owner upon request.

17.06-A Records and statements required to be made, kept or filed under the provisions of this Article 17 shall not be public records as defined in M.G.L. c.4, §7 and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of Subparagraph 17.02-A.2 and 17.05-A.”

ARTICLE 18
FOLLOWS:

INSERT A NEW ARTICLE 18 IN THE GENERAL CONDITIONS AS

“ARTICLE 18: NONDISCRIMINATION IN EMPLOYMENT

18.01-A Contracts for work under this bid will obligate the Contractor and Subcontractors not to discriminate in employment practices.

18.02-A Contracts for work under this project will obligate the Contractor and Subcontractors to maintain not less than five (5%) percent ratio of minority employee man hours to total man hours.

18.03-A In connection with the performance of work under the Contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object), genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap. The aforesaid provision shall include, but not be limited to the following: advertising; recruitment; hiring; rates of pay or other forms of compensation; terms, conditions or privileges of employment; employment upgrading; transfer; demotion; layoff; and termination. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Massachusetts Commission Against Discrimination or other applicable agency of the Commonwealth of Massachusetts setting forth the provisions of the Fair Employment Practices Law of the Commonwealth. The Contractor shall also undertake in good faith, affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age, sex, gender identity, sexual orientation (which shall not include persons whose sexual orientation involves minor children as the sex object; genetic information, ancestry, children, marital status, veteran status or membership in the armed services, the receiving of public assistance, and handicap, and to eliminate and remedy any effects of such discrimination in the past.

18.04-A Successful Bidder shall submit a Contractor’s Certification Form and a Subcontractor’s Certification Form concerning its employment practices and policies in order to maintain its eligibility to receive the award of the Contract. These forms shall be submitted with the signed Contract Documents.”

ARTICLE 19 -MISCELLANEOUS

SC-19.01-B Add the following new paragraph immediately after paragraph 19.01-A.2. of the General Conditions:

"19.01-B Both the address given in the Bid Form upon which this Agreement is founded, and Contractor's office at or near the site of the Work are hereby designated as places to either of which notices, letters, and other communications to Contractor shall be certified, mailed, or delivered, the delivering at the above named place, or depositing in a postpaid wrapper directed to the first-named place, in any post office box regularly maintained by the post office department, of any notice, letter or other communication to Contractor shall be deemed sufficient service thereof upon Contractor; and the date of said service shall be the date of such delivery or mailing.

The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by Contractor, and delivered to Owner and Engineer in accordance with this Article 19. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon Contractor personally."

SC-19.01-C Add the following new paragraph 19.01-C to the General Conditions:

Notices given to the Owner shall be given to the Town Administrator, Town of Natick, Natick Town Hall, 13 East Central Street, Natick, MA 01760, to the Director, Natick Department of Public Works, 75 West Street, Natick, MA 01760 and to the Engineer.

SC-19.05-A Delete paragraph 19.05-A (formerly 17.05-A) of the General Conditions and insert the following paragraph:

"A. This Contract shall be governed by and interpreted in accordance with the laws of the Commonwealth of Massachusetts, regardless of choice of law principles".

Insert the following new paragraphs 19.07 through 19.15 in the General Conditions.

"19.07 MINIMUM PREVAILING WAGE RATES

19.07 -A The requirements and provisions of all applicable laws and any amendments thereof or additions thereto as to the employment of labor, and to the schedule of minimum prevailing wage rates established in compliance with laws, including without limitation M.G.L. c.149, §26-27G, shall be a part of these Contract Documents. Copies of Federal and/or State wage schedules are included at the end of Part I of these Supplementary Conditions. If, after the Notice to Proceed, it becomes necessary to employ any person in a trade or occupation not classified in the wage determinations, such person shall be paid at not less than such wages as shall be determined by the officials administering the laws mentioned above. Such approved minimum rate shall be retroactive to the time of the initial employment of such person on such trade or occupation. Contractor shall notify Owner of his intention to employ persons in trades or occupations not classified in sufficient time for Owner to obtain approved rates for such trades or occupations.

19.07-A.1. The schedules of wages referred to above are minimum rates only, and Owner will not consider any claims for additional compensation made by Contractor because of payment by Contractor of any wage rate in excess of the applicable rate contained in these Contract Documents. All disputes in regard to the payment of wages in excess of these specified in the schedules shall be adjusted by Contractor.

19.07-A.2 The said schedules of wages shall continue to be the minimum rates to be paid during the life of the Agreement and a legible copy of said schedules shall be kept posted in a conspicuous place at the site of the Work.

19.07-A.3 Federal and/or State schedule of minimum prevailing wage rates are included in Part I of these Supplementary Conditions. Where rates differ, the higher rates shall apply as a minimum for that trade.

19.07-A.4 The Contractor shall submit weekly payroll records to the Owner during the progress of the Contract, for each day work is performed and keep them on file for three (3) years.

19.07-A.5 The Contractor should obtain a schedule of minimum prevailing wage rates for every public building construction project from the Owner. It is the Owner's responsibility to ensure that a copy of the wage schedule is provided to all Contractors from whom estimates or bids are solicited for all projects. The Department of Labor and Workforce Development will not issue wage schedules directly to contractors or employees.

19.07-A.6 Once a wage schedule has been issued for a project by the Department of Labor and Workforce Development, it will remain in effect for the entire project. Appeals of wage determinations or classifications of employment may be made to the Department of Labor and Workforce Development Commissioner.

19.07-A.7 A wage schedule issued for a project may not be issued on any other project. If, by chance, the Owner fails to provide a wage schedule to use when figuring your bid, do not use one from another project. In this case, the Contractor should contact the Department of Labor and Workforce Development immediately and urge the Owner to contact the Department of Labor and Workforce Development to correct the oversight.

19.07-A.8 The failure of the Owner to provide a wage schedule does not excuse the Contractor from paying the minimum prevailing wage rate.

19.07-A.9 The Attorney General's Division of Fair Labor & Business Practices enforces the minimum prevailing wage law. All bids shall reflect minimum prevailing wage rates. CONTRACTORS may be required by an awarding authority to "demonstrate how they could complete the project and comply with Mass. Gen. Laws". The Division issued an "Advisory" discussing these and other points. For a copy, please contact the Attorney General's Office.

19.07-A.10 Minimum prevailing wages shall be paid to all employees on public building construction projects regardless of whether they are employed by the General Contractor, a filed sub-bidder or any sub-contractor. The minimum prevailing wage applies equally to unionized and non-unionized workers.

19.07-A.11 All employees who perform work on a public building construction project shall be paid hourly according to the wage schedule issued for the particular project.

19.07-A.12 The wage schedule issued for each project is in effect for the duration of that project. All wage increases listed on the schedule shall be paid on the specified dates.

19.07-A.13 Contractors are limited in the deductions that can be made from the hourly rate (represented as the "total rate" on the wage schedules). Only contributions to the following plans may be deducted:

- Health and Welfare
- Pension
- Supplementary Unemployment

All contributions shall be made to bona fide plans.

19.07-A.14 If the Contractor contributes to any, or all, of the above plans, it may deduct the hourly amount contributed from the "total rate". If the Contractor does not contribute to any of the benefit plans listed above, then the hourly rate of pay will be the "total rate" from the wage schedule.

19.07-A.15 All other deductions, including but not limited to the following, may not be subtracted from the employee's hourly minimum prevailing wage rate:

- Vacation Time
- Sick Time
- Training Funds
- Charitable Contributions
- Workers Compensation
- Unemployment Insurance
- Uniforms

19.07-A.16 Overtime, which shall be paid to all employees who work more than forty (40) hours per week, shall be at least time-and-one-half the base rate ("total rate" less benefits, if any).

19.07-A.17 Any "separate check" given to any employee as the "benefit portion" of the minimum prevailing wage may not be treated differently than the check for "base wages". All "separate checks" are considered wages and subject to state and federal taxes, unemployment insurance and worker's compensation requirements.

19.07-A.18 A reporting form is sent along with each wage schedule that may be used. Each report shall contain at least: the employee's name, address, occupational classification, hours worked and wages paid. Do not submit weekly payroll reports to the Department of Labor and Workforce Development.

19.07-A.19 After the Contractor completes its portion of the public building construction project, the Contractor shall submit a Statement of Compliance to the Department of Labor and Workforce Development. A Statement of Compliance form is also sent along with each wage schedule issued.

19.07-A.20 Apprentices shall be registered with the Division of Apprentice Training (DAT). All persons not registered with DAT shall be paid the "total rate" listed on the wage schedule. An apprentice sheet showing percentages based on the apprentice steps is included with all wage schedules.

19.07-A.21 Failure to pay the minimum prevailing wage subjects the Contractor to potential civil and criminal liability.

"SC-19.08-A If any provision of the Contract Documents is determined to be invalid or unenforceable by final judgment of a court of competent jurisdiction, the remaining provisions shall continue in effect to the extent permitted by law.

SC-19.09-A All provisions of law required to be inserted in the Contract Documents shall be and are inserted herein. If any such provision is not herein inserted or inserted in improper form, upon the application of either party, the Contract Documents shall be changed by the Owner, at no increase in contract sum or contract time, so as to strictly comply with the law and without prejudice to the rights of either party herein.

SC-19.10-A No forbearance or indulgence in any form or manner by the Owner shall be construed as a waiver or in any way limit the legal or equitable remedies available to the Owner. No waiver by the Owner of any default or breach shall constitute a waiver of any subsequent default or breach.

SC-19.11-A Attorney's Fees. In the event that any legal or equitable action, suit, or claim, counter-claim, cross-claim, or third-party claim of any kind relating to the Contract is filed, pleaded or initiated by the Owner or Contractor against the other party to the Contract, which results in a judgment, award or order of any kind in favor of the Owner, the Contractor shall be responsible for all reasonable costs, expenses, attorney's fees and expert witness fees incurred by the Owner in filing, prosecuting, maintaining, appealing or defending against such action, suit, or claim, counter-claim, cross-claim, or third-party claim.

SC-19.12-A Any cause of action which the Owner may have in connection with Work shall be deemed to accrue only when the Owner has obtained actual knowledge of the act of omission which gives rise to the cause of action, not before.

SC-19.13-A No officer, member of a board, commission or committee, employee or agent of the Owner shall be personally or individually liable to the Contractor with respect to the Contract or the Work. Each subcontract shall include the foregoing limitation, which shall be effective if the Owner ever succeeds to the Contractor's rights and obligations under the subcontract.

SC-19.14-A The Contract may be amended only by written Contract of the parties.

SC-19.15-A The Contract may not be assigned by the Contractor without the prior written assent of the Owner."

Insert a new Article 20 in the General Conditions, as follows:

ARTICLE 20: ADDITIONAL PROVISIONS

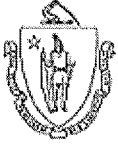
20.01 Certification of Tax Compliance - By entering into an Contract with the Owner, the Contractor certifies under the penalties of perjury, pursuant to M.G.L. Chapter 62C, Section 49A(b), that it has complied with all laws of the Commonwealth of Massachusetts relating to taxes, to the reporting of employees and Contractors, and to the withholding and remitting of child support.

20.02 Conflict of Interest - The Contractor understands that the Massachusetts Conflict of Interest Law, Chapter 268A of the Massachusetts General Laws, applies to the Contractor with respect to the services required to be provided under the Contract. The Contractor and its officers, employees, agents, Subcontractors and affiliated agencies shall not participate in any activity which constitutes a violation of the Massachusetts Conflict of Interest Law or which creates an appearance of a violation of the Massachusetts Conflict of Interest Law.

20.03 Non-Collusion - By entering into the Contract with the Owner, the Contractor certifies under penalties of perjury that its bid has been made and submitted in good faith and without collusion or fraud with any person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

20.04 Independent Contractor Status - The Contractor shall provide services under any Contract with the Owner as an independent contractor with the Town of Natick and not as an employee of the Town of Natick. No employee, agent or representative of the Contractor shall be entitled to receive any benefits of employment with the Town of Natick, including without limitation salary, overtime, vacation pay, holiday pay, sick leave, health insurance, life insurance, pension or deferred compensation.

20.05 Additional Statutory Incorporations - The provisions of M.G.L. Chapter 149, Sections 34 (Public contracts; stipulation as to hours and days of work; void contracts), 34A (Contracts for public works; workers' compensation insurance; breach of contract; enforcement and violation of statute), and 34B (Contracts for public works; wages for reserve police officer) shall hereby be incorporated into this Contract by reference.



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

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

ROSALIN ACOSTA
Secretary
WILLIAM D MCKINNEY
Director

Awarding Authority: Natick Department of Public Works
Contract Number: **City/Town:** NATICK
Description of Work: Springvale #4 Water Pump Station - Construction of a cavity wall water pump station including water and sewer mains and associated electrical work.
Job Location: Route 9 Natick

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 Department of Labor Standards, Division of Apprentice Standards (DLS/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. **Any apprentice not registered with DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency 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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2016	\$32.15	\$10.91	\$10.89	\$0.00	\$53.95
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2016	\$32.22	\$10.91	\$10.89	\$0.00	\$54.02
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2016	\$32.34	\$10.91	\$10.89	\$0.00	\$54.14
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2017	\$92.97	\$9.90	\$21.15	\$0.00	\$124.02
	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR LABORERS - ZONE 2	12/01/2017	\$33.58	\$7.70	\$13.60	\$0.00	\$54.88
	06/01/2018	\$34.42	\$7.70	\$13.60	\$0.00	\$55.72
	12/01/2018	\$35.26	\$7.70	\$13.60	\$0.00	\$56.56
	06/01/2019	\$36.13	\$7.70	\$13.60	\$0.00	\$57.43
	12/01/2019	\$36.99	\$7.70	\$13.60	\$0.00	\$58.29
	06/01/2020	\$37.88	\$7.70	\$13.60	\$0.00	\$59.18
	12/01/2020	\$38.77	\$7.70	\$13.60	\$0.00	\$60.07
	06/01/2021	\$39.69	\$7.70	\$13.60	\$0.00	\$60.99
	12/01/2021	\$40.60	\$7.70	\$13.60	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	12/01/2017	\$35.90	\$11.50	\$7.10	\$0.00	\$54.50
	06/01/2018	\$36.90	\$11.50	\$7.10	\$0.00	\$55.50
	12/01/2018	\$37.90	\$11.50	\$7.10	\$0.00	\$56.50
	06/01/2019	\$38.90	\$11.50	\$7.10	\$0.00	\$57.50
	12/01/2019	\$39.90	\$11.50	\$7.10	\$0.00	\$58.50
	06/01/2020	\$40.90	\$11.50	\$7.10	\$0.00	\$59.50
	12/01/2020	\$41.90	\$11.50	\$7.10	\$0.00	\$60.50
ASPHALT RAKER LABORERS - ZONE 2	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE OPERATING ENGINEERS LOCAL 4	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER OPERATING ENGINEERS LOCAL 4	12/01/2017	\$46.63	\$10.50	\$15.50	\$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>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.58	\$7.70	\$13.60	\$0.00	\$54.88
	06/01/2018	\$34.42	\$7.70	\$13.60	\$0.00	\$55.72
	12/01/2018	\$35.26	\$7.70	\$13.60	\$0.00	\$56.56
	06/01/2019	\$36.13	\$7.70	\$13.60	\$0.00	\$57.43
	12/01/2019	\$36.99	\$7.70	\$13.60	\$0.00	\$58.29
	06/01/2020	\$37.88	\$7.70	\$13.60	\$0.00	\$59.18
	12/01/2020	\$38.77	\$7.70	\$13.60	\$0.00	\$60.07
	06/01/2021	\$39.69	\$7.70	\$13.60	\$0.00	\$60.99
	12/01/2021	\$40.60	\$7.70	\$13.60	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2017	\$42.92	\$6.97	\$16.21	\$0.00	\$66.10

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
2	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
3	70	\$30.04	\$6.97	\$11.35	\$0.00	\$48.36
4	75	\$32.19	\$6.97	\$12.16	\$0.00	\$51.32
5	80	\$34.34	\$6.97	\$12.97	\$0.00	\$54.28
6	85	\$36.48	\$6.97	\$13.78	\$0.00	\$57.23
7	90	\$38.63	\$6.97	\$14.59	\$0.00	\$60.19
8	95	\$40.77	\$6.97	\$15.40	\$0.00	\$63.14

Notes:

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) <i>BRICKLAYERS LOCAL 3 (LOWELL)</i>	09/01/2017	\$49.96	\$10.75	\$18.75	\$0.00	\$79.46
	03/01/2018	\$50.64	\$10.75	\$18.75	\$0.00	\$80.14
	08/01/2018	\$51.99	\$10.75	\$18.88	\$0.00	\$81.62
	02/01/2019	\$52.59	\$10.75	\$18.88	\$0.00	\$82.22
	08/01/2019	\$53.94	\$10.75	\$19.02	\$0.00	\$83.71
	02/01/2020	\$54.54	\$10.75	\$19.02	\$0.00	\$84.31
	08/01/2020	\$55.89	\$10.75	\$19.17	\$0.00	\$85.81
	02/01/2021	\$56.49	\$10.75	\$19.17	\$0.00	\$86.41
	08/01/2021	\$57.89	\$10.75	\$19.33	\$0.00	\$87.97
	02/01/2022	\$58.47	\$10.75	\$19.33	\$0.00	\$88.55

Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Lowell

Effective Date - 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.98	\$10.75	\$18.75	\$0.00	\$54.48
2	60	\$29.98	\$10.75	\$18.75	\$0.00	\$59.48
3	70	\$34.97	\$10.75	\$18.75	\$0.00	\$64.47
4	80	\$39.97	\$10.75	\$18.75	\$0.00	\$69.47
5	90	\$44.96	\$10.75	\$18.75	\$0.00	\$74.46

Effective Date - 03/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.32	\$10.75	\$18.75	\$0.00	\$54.82
2	60	\$30.38	\$10.75	\$18.75	\$0.00	\$59.88
3	70	\$35.45	\$10.75	\$18.75	\$0.00	\$64.95
4	80	\$40.51	\$10.75	\$18.75	\$0.00	\$70.01
5	90	\$45.58	\$10.75	\$18.75	\$0.00	\$75.08

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$37.45	\$7.60	\$14.35	\$0.00	\$59.40
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.30	\$7.60	\$14.35	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.30	\$7.60	\$14.35	\$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>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	09/01/2017	\$39.28	\$9.90	\$17.50	\$0.00	\$66.68
	03/01/2018	\$40.28	\$9.90	\$17.50	\$0.00	\$67.68
	09/01/2018	\$41.32	\$9.90	\$17.50	\$0.00	\$68.72
	03/01/2019	\$42.35	\$9.90	\$17.50	\$0.00	\$69.75

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.64	\$9.90	\$1.73	\$0.00	\$31.27
2	60	\$23.57	\$9.90	\$1.73	\$0.00	\$35.20
3	70	\$27.50	\$9.90	\$12.31	\$0.00	\$49.71
4	75	\$29.46	\$9.90	\$12.31	\$0.00	\$51.67
5	80	\$31.42	\$9.90	\$14.04	\$0.00	\$55.36
6	80	\$31.42	\$9.90	\$14.04	\$0.00	\$55.36
7	90	\$35.35	\$9.90	\$15.77	\$0.00	\$61.02
8	90	\$35.35	\$9.90	\$15.77	\$0.00	\$61.02

Effective Date - 03/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.14	\$9.90	\$1.73	\$0.00	\$31.77
2	60	\$24.17	\$9.90	\$1.73	\$0.00	\$35.80
3	70	\$28.20	\$9.90	\$12.31	\$0.00	\$50.41
4	75	\$30.21	\$9.90	\$12.31	\$0.00	\$52.42
5	80	\$32.22	\$9.90	\$14.04	\$0.00	\$56.16
6	80	\$32.22	\$9.90	\$14.04	\$0.00	\$56.16
7	90	\$36.25	\$9.90	\$15.77	\$0.00	\$61.92
8	90	\$36.25	\$9.90	\$15.77	\$0.00	\$61.92

Notes:

Apprentice to Journeyworker Ratio:1:5

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CEMENT MASONRY/PLASTERING <i>BRICKLAYERS LOCAL 3 (LOWELL)</i>	07/01/2017	\$42.61	\$12.20	\$19.41	\$1.30	\$75.52
	01/01/2018	\$43.82	\$12.20	\$19.41	\$1.30	\$76.73
	07/01/2018	\$44.74	\$12.20	\$19.41	\$1.30	\$77.65
	01/01/2019	\$45.98	\$12.20	\$19.41	\$1.30	\$78.89
	07/01/2019	\$46.86	\$12.20	\$19.41	\$1.30	\$79.77
	01/01/2020	\$48.10	\$12.20	\$19.41	\$1.30	\$81.01

Apprentice - CEMENT MASONRY/PLASTERING - Lowell

Effective Date - 07/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.31	\$12.20	\$12.41	\$0.00	\$45.92
2	60	\$25.57	\$12.20	\$14.41	\$1.30	\$53.48
3	65	\$27.70	\$12.20	\$15.41	\$1.30	\$56.61
4	70	\$29.83	\$12.20	\$16.41	\$1.30	\$59.74
5	75	\$31.96	\$12.20	\$17.41	\$1.30	\$62.87
6	80	\$34.09	\$12.20	\$18.41	\$1.30	\$66.00
7	90	\$38.35	\$12.20	\$19.41	\$1.30	\$71.26

Effective Date - 01/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.91	\$12.20	\$12.41	\$0.00	\$46.52
2	60	\$26.29	\$12.20	\$14.41	\$1.30	\$54.20
3	65	\$28.48	\$12.20	\$15.41	\$1.30	\$57.39
4	70	\$30.67	\$12.20	\$16.41	\$1.30	\$60.58
5	75	\$32.87	\$12.20	\$17.41	\$1.30	\$63.78
6	80	\$35.06	\$12.20	\$18.41	\$1.30	\$66.97
7	90	\$39.44	\$12.20	\$19.41	\$1.30	\$72.35

Notes:

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

Apprentice to Journeyworker Ratio:1:3

CHAIN SAW OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$47.63	\$10.50	\$15.50	\$0.00	\$73.63
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$31.80	\$10.50	\$15.50	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN <i>LABORERS - ZONE 2</i>	12/01/2017	\$37.65	\$7.70	\$14.75	\$0.00	\$60.10
	06/01/2018	\$38.60	\$7.70	\$14.75	\$0.00	\$61.05
	12/01/2018	\$39.55	\$7.70	\$14.75	\$0.00	\$62.00
	06/01/2019	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	12/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2017	\$38.65	\$7.70	\$14.75	\$0.00	\$61.10
	06/01/2018	\$39.60	\$7.70	\$14.75	\$0.00	\$62.05
	12/01/2018	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	06/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
	12/01/2019	\$42.55	\$7.70	\$14.75	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS <i>LABORERS - ZONE 2</i>	12/01/2017	\$38.40	\$7.70	\$14.75	\$0.00	\$60.85
	06/01/2018	\$39.35	\$7.70	\$14.75	\$0.00	\$61.80
	12/01/2018	\$40.30	\$7.70	\$14.75	\$0.00	\$62.75
	06/01/2019	\$41.30	\$7.70	\$14.75	\$0.00	\$63.75
	12/01/2019	\$42.30	\$7.70	\$14.75	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 2</i>	12/01/2017	\$38.65	\$7.70	\$14.75	\$0.00	\$61.10
	06/01/2018	\$39.60	\$7.70	\$14.75	\$0.00	\$62.05
	12/01/2018	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	06/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
	12/01/2019	\$42.55	\$7.70	\$14.75	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2017	\$38.40	\$7.70	\$14.75	\$0.00	\$60.85
	06/01/2018	\$39.35	\$7.70	\$14.75	\$0.00	\$61.80
	12/01/2018	\$40.30	\$7.70	\$14.75	\$0.00	\$62.75
	06/01/2019	\$41.30	\$7.70	\$14.75	\$0.00	\$63.75
	12/01/2019	\$42.30	\$7.70	\$14.75	\$0.00	\$64.75
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 2</i>	12/01/2017	\$37.65	\$7.70	\$14.75	\$0.00	\$60.10
	06/01/2018	\$38.60	\$7.70	\$14.75	\$0.00	\$61.05
	12/01/2018	\$39.55	\$7.70	\$14.75	\$0.00	\$62.00
	06/01/2019	\$40.55	\$7.70	\$14.75	\$0.00	\$63.00
	12/01/2019	\$41.55	\$7.70	\$14.75	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$61.98	\$9.90	\$21.15	\$0.00	\$93.03
	08/01/2018	\$65.20	\$9.90	\$21.15	\$0.00	\$96.25
	08/01/2019	\$68.52	\$9.90	\$21.15	\$0.00	\$99.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$44.27	\$9.90	\$21.15	\$0.00	\$75.32
	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$66.41	\$9.90	\$21.15	\$0.00	\$97.46
	08/01/2018	\$69.86	\$9.90	\$21.15	\$0.00	\$100.91
	08/01/2019	\$73.41	\$9.90	\$21.15	\$0.00	\$104.46
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2017	\$92.97	\$9.90	\$21.15	\$0.00	\$124.02
	08/01/2018	\$97.80	\$9.90	\$21.15	\$0.00	\$128.85
	08/01/2019	\$102.78	\$9.90	\$21.15	\$0.00	\$133.83
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>ELECTRICIANS LOCAL 103</i>	09/01/2017	\$49.28	\$13.00	\$17.48	\$0.00	\$79.76
	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	09/01/2017	\$49.28	\$13.00	\$17.48	\$0.00	\$79.76
	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46

Classification

**Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate**

Apprentice - ELECTRICIAN - Local 103
Effective Date - 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.71	\$13.00	\$0.59	\$0.00	\$33.30
2	40	\$19.71	\$13.00	\$0.59	\$0.00	\$33.30
3	45	\$22.18	\$13.00	\$13.39	\$0.00	\$48.57
4	45	\$22.18	\$13.00	\$13.39	\$0.00	\$48.57
5	50	\$24.64	\$13.00	\$13.76	\$0.00	\$51.40
6	55	\$27.10	\$13.00	\$14.12	\$0.00	\$54.22
7	60	\$29.57	\$13.00	\$14.50	\$0.00	\$57.07
8	65	\$32.03	\$13.00	\$14.87	\$0.00	\$59.90
9	70	\$34.50	\$13.00	\$15.25	\$0.00	\$62.75
10	75	\$36.96	\$13.00	\$15.62	\$0.00	\$65.58

Effective Date - 03/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.06	\$13.00	\$0.60	\$0.00	\$33.66
2	40	\$20.06	\$13.00	\$0.60	\$0.00	\$33.66
3	45	\$22.57	\$13.00	\$13.61	\$0.00	\$49.18
4	45	\$22.57	\$13.00	\$13.61	\$0.00	\$49.18
5	50	\$25.08	\$13.00	\$13.99	\$0.00	\$52.07
6	55	\$27.58	\$13.00	\$14.38	\$0.00	\$54.96
7	60	\$30.09	\$13.00	\$14.76	\$0.00	\$57.85
8	65	\$32.60	\$13.00	\$15.15	\$0.00	\$60.75
9	70	\$35.11	\$13.00	\$15.53	\$0.00	\$63.64
10	75	\$37.61	\$13.00	\$15.93	\$0.00	\$66.54

Notes :

App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR	01/01/2017	\$55.86	\$15.28	\$15.71	\$0.00	\$86.85
ELEVATOR CONSTRUCTORS LOCAL 4						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - ELEVATOR CONSTRUCTOR - Local 4

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.93	\$15.28	\$0.00	\$0.00	\$43.21
2	55	\$30.72	\$15.28	\$15.71	\$0.00	\$61.71
3	65	\$36.31	\$15.28	\$15.71	\$0.00	\$67.30
4	70	\$39.10	\$15.28	\$15.71	\$0.00	\$70.09
5	80	\$44.69	\$15.28	\$15.71	\$0.00	\$75.68

Notes:

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

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 4</i>	01/01/2017	\$39.10	\$15.28	\$15.71	\$0.00	\$70.09
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For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2017	\$42.88	\$10.00	\$15.25	\$0.00	\$68.13
	05/01/2018	\$43.59	\$10.00	\$15.25	\$0.00	\$68.84

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2017	\$44.34	\$10.00	\$15.25	\$0.00	\$69.59
	05/01/2018	\$45.06	\$10.00	\$15.25	\$0.00	\$70.31

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2017	\$22.83	\$10.00	\$15.25	\$0.00	\$48.08
	05/01/2018	\$23.26	\$10.00	\$15.25	\$0.00	\$48.51

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	09/01/2017	\$49.28	\$13.00	\$17.48	\$0.00	\$79.76
	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46

For apprentice rates see "Apprentice- ELECTRICIAN"

FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING <i>ELECTRICIANS LOCAL 103</i>	09/01/2017	\$36.96	\$13.00	\$15.62	\$0.00	\$65.58
	03/01/2018	\$37.61	\$13.00	\$15.93	\$0.00	\$66.54
	09/01/2018	\$38.51	\$13.00	\$15.96	\$0.00	\$67.47
	03/01/2019	\$39.40	\$13.00	\$15.98	\$0.00	\$68.38

For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIREMAN (ASST. ENGINEER) OPERATING ENGINEERS LOCAL 4	12/01/2017	\$38.57	\$10.50	\$15.50	\$0.00	\$64.57
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER LABORERS - ZONE 2	12/01/2017	\$21.50	\$7.70	\$13.60	\$0.00	\$42.80
	06/01/2018	\$21.50	\$7.70	\$13.60	\$0.00	\$42.80
	12/01/2018	\$22.50	\$7.70	\$13.60	\$0.00	\$43.80
	06/01/2019	\$22.50	\$7.70	\$13.60	\$0.00	\$43.80
	12/01/2019	\$23.50	\$7.70	\$13.60	\$0.00	\$44.80
	06/01/2020	\$23.50	\$7.70	\$13.60	\$0.00	\$44.80
	12/01/2020	\$24.50	\$7.70	\$13.60	\$0.00	\$45.80
	06/01/2021	\$24.50	\$7.70	\$13.60	\$0.00	\$45.80
	12/01/2021	\$24.50	\$7.70	\$13.60	\$0.00	\$45.80
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER FLOORCOVERERS LOCAL 2168 ZONE I	03/01/2016	\$42.13	\$9.80	\$17.62	\$0.00	\$69.55

Apprentice - FLOORCOVERER - Local 2168 Zone I

Effective Date - 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.07	\$9.80	\$1.79	\$0.00	\$32.66
2	55	\$23.17	\$9.80	\$1.79	\$0.00	\$34.76
3	60	\$25.28	\$9.80	\$12.25	\$0.00	\$47.33
4	65	\$27.38	\$9.80	\$12.25	\$0.00	\$49.43
5	70	\$29.49	\$9.80	\$14.04	\$0.00	\$53.33
6	75	\$31.60	\$9.80	\$14.04	\$0.00	\$55.44
7	80	\$33.70	\$9.80	\$15.83	\$0.00	\$59.33
8	85	\$35.81	\$9.80	\$15.83	\$0.00	\$61.44

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER OPERATING ENGINEERS LOCAL 4	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS OPERATING ENGINEERS LOCAL 4	12/01/2017	\$31.80	\$10.50	\$15.50	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 35 (ZONE 2)	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 - 01/01/2017							
Step	percent		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50		\$20.46	\$7.85	\$0.00	\$0.00	\$28.31
2	55		\$22.50	\$7.85	\$3.66	\$0.00	\$34.01
3	60		\$24.55	\$7.85	\$3.99	\$0.00	\$36.39
4	65		\$26.59	\$7.85	\$4.32	\$0.00	\$38.76
5	70		\$28.64	\$7.85	\$14.11	\$0.00	\$50.60
6	75		\$30.68	\$7.85	\$14.44	\$0.00	\$52.97
7	80		\$32.73	\$7.85	\$14.77	\$0.00	\$55.35
8	90		\$36.82	\$7.85	\$15.44	\$0.00	\$60.11

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
OPERATING ENGINEERS LOCAL 4						

Apprentice - OPERATING ENGINEERS - Local 4

Effective Date - 12/01/2017

Step	percent		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55		\$25.65	\$10.50	\$0.00	\$0.00	\$36.15
2	60		\$27.98	\$10.50	\$15.50	\$0.00	\$53.98
3	65		\$30.31	\$10.50	\$15.50	\$0.00	\$56.31
4	70		\$32.64	\$10.50	\$15.50	\$0.00	\$58.64
5	75		\$34.97	\$10.50	\$15.50	\$0.00	\$60.97
6	80		\$37.30	\$10.50	\$15.50	\$0.00	\$63.30
7	85		\$39.64	\$10.50	\$15.50	\$0.00	\$65.64
8	90		\$41.97	\$10.50	\$15.50	\$0.00	\$67.97

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK)	08/01/2017	\$43.83	\$11.45	\$24.03	\$2.38	\$81.69
SHEETMETAL WORKERS LOCAL 17 - A						
	02/01/2018	\$44.98	\$11.45	\$24.03	\$2.38	\$82.84
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS)	09/01/2017	\$49.28	\$13.00	\$17.48	\$0.00	\$79.76
ELECTRICIANS LOCAL 103						
	03/01/2018	\$50.15	\$13.00	\$17.85	\$0.00	\$81.00
	09/01/2018	\$51.34	\$13.00	\$17.89	\$0.00	\$82.23
	03/01/2019	\$52.53	\$13.00	\$17.93	\$0.00	\$83.46
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR)	08/01/2017	\$43.83	\$11.45	\$24.03	\$2.38	\$81.69
SHEETMETAL WORKERS LOCAL 17 - A						
	02/01/2018	\$44.98	\$11.45	\$24.03	\$2.38	\$82.84

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING -WATER) PIPEFITTERS LOCAL 537	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC PIPEFITTERS LOCAL 537	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS LABORERS - ZONE 2	12/01/2017	\$33.58	\$7.70	\$13.60	\$0.00	\$54.88
	06/01/2018	\$34.42	\$7.70	\$13.60	\$0.00	\$55.72
	12/01/2018	\$35.26	\$7.70	\$13.60	\$0.00	\$56.56
	06/01/2019	\$36.13	\$7.70	\$13.60	\$0.00	\$57.43
	12/01/2019	\$36.99	\$7.70	\$13.60	\$0.00	\$58.29
	06/01/2020	\$37.88	\$7.70	\$13.60	\$0.00	\$59.18
	12/01/2020	\$38.77	\$7.70	\$13.60	\$0.00	\$60.07
	06/01/2021	\$39.69	\$7.70	\$13.60	\$0.00	\$60.99
	12/01/2021	\$40.60	\$7.70	\$13.60	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	09/01/2017	\$47.09	\$11.75	\$14.20	\$0.00	\$73.04
	09/01/2018	\$49.34	\$11.75	\$14.20	\$0.00	\$75.29
	09/01/2019	\$51.84	\$11.75	\$14.20	\$0.00	\$77.79

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

Effective Date - 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.55	\$11.75	\$10.45	\$0.00	\$45.75
2	60	\$28.25	\$11.75	\$11.20	\$0.00	\$51.20
3	70	\$32.96	\$11.75	\$11.95	\$0.00	\$56.66
4	80	\$37.67	\$11.75	\$12.70	\$0.00	\$62.12

Effective Date - 09/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.67	\$11.75	\$10.45	\$0.00	\$46.87
2	60	\$29.60	\$11.75	\$11.20	\$0.00	\$52.55
3	70	\$34.54	\$11.75	\$11.95	\$0.00	\$58.24
4	80	\$39.47	\$11.75	\$12.70	\$0.00	\$63.92

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 (BOSTON AREA)	03/16/2017	\$44.65	\$7.80	\$20.85	\$0.00	\$73.30
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Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - IRONWORKER - Local 7 Boston

Effective Date - 03/16/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$26.79	\$7.80	\$20.85	\$0.00	\$55.44
2	70	\$31.26	\$7.80	\$20.85	\$0.00	\$59.91
3	75	\$33.49	\$7.80	\$20.85	\$0.00	\$62.14
4	80	\$35.72	\$7.80	\$20.85	\$0.00	\$64.37
5	85	\$37.95	\$7.80	\$20.85	\$0.00	\$66.60
6	90	\$40.19	\$7.80	\$20.85	\$0.00	\$68.84

Notes:

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

Apprentice to Journeyworker Ratio:**

JACKHAMMER & PAVING BREAKER OPERATOR	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
LABORERS - ZONE 2	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
LABORER	12/01/2017	\$32.83	\$7.70	\$13.60	\$0.00	\$54.13
LABORERS - ZONE 2	06/01/2018	\$33.67	\$7.70	\$13.60	\$0.00	\$54.97
	12/01/2018	\$34.51	\$7.70	\$13.60	\$0.00	\$55.81
	06/01/2019	\$35.38	\$7.70	\$13.60	\$0.00	\$56.68
	12/01/2019	\$36.24	\$7.70	\$13.60	\$0.00	\$57.54
	06/01/2020	\$37.13	\$7.70	\$13.60	\$0.00	\$58.43
	12/01/2020	\$38.02	\$7.70	\$13.60	\$0.00	\$59.32
	06/01/2021	\$38.94	\$7.70	\$13.60	\$0.00	\$60.24
	12/01/2021	\$39.85	\$7.70	\$13.60	\$0.00	\$61.15

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - LABORER - Zone 2

Effective Date - 12/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.70	\$7.70	\$13.60	\$0.00	\$41.00
2	70	\$22.98	\$7.70	\$13.60	\$0.00	\$44.28
3	80	\$26.26	\$7.70	\$13.60	\$0.00	\$47.56
4	90	\$29.55	\$7.70	\$13.60	\$0.00	\$50.85

Effective Date - 06/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.20	\$7.70	\$13.60	\$0.00	\$41.50
2	70	\$23.57	\$7.70	\$13.60	\$0.00	\$44.87
3	80	\$26.94	\$7.70	\$13.60	\$0.00	\$48.24
4	90	\$30.30	\$7.70	\$13.60	\$0.00	\$51.60

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER	12/01/2017	\$32.83	\$7.70	\$13.60	\$0.00	\$54.13
LABORERS - ZONE 2	06/01/2018	\$33.67	\$7.70	\$13.60	\$0.00	\$54.97
	12/01/2018	\$34.51	\$7.70	\$13.60	\$0.00	\$55.81
	06/01/2019	\$35.38	\$7.70	\$13.60	\$0.00	\$56.68
	12/01/2019	\$36.24	\$7.70	\$13.60	\$0.00	\$57.54
	06/01/2020	\$37.13	\$7.70	\$13.60	\$0.00	\$58.43
	12/01/2020	\$38.02	\$7.70	\$13.60	\$0.00	\$59.32
	06/01/2021	\$38.94	\$7.70	\$13.60	\$0.00	\$60.24
	12/01/2021	\$39.85	\$7.70	\$13.60	\$0.00	\$61.15

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER	12/01/2017	\$32.83	\$7.70	\$13.60	\$0.00	\$54.13
LABORERS - ZONE 2	06/01/2018	\$33.67	\$7.70	\$13.60	\$0.00	\$54.97
	12/01/2018	\$34.51	\$7.70	\$13.60	\$0.00	\$55.81
	06/01/2019	\$35.38	\$7.70	\$13.60	\$0.00	\$56.68
	12/01/2019	\$36.24	\$7.70	\$13.60	\$0.00	\$57.54
	06/01/2020	\$37.13	\$7.70	\$13.60	\$0.00	\$58.43
	12/01/2020	\$38.02	\$7.70	\$13.60	\$0.00	\$59.32
	06/01/2021	\$38.94	\$7.70	\$13.60	\$0.00	\$60.24
	12/01/2021	\$39.85	\$7.70	\$13.60	\$0.00	\$61.15

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	12/01/2017	\$33.03	\$7.70	\$13.55	\$0.00	\$54.28
LABORERS - ZONE 2	06/01/2018	\$33.87	\$7.70	\$13.55	\$0.00	\$55.12
	12/01/2018	\$34.71	\$7.70	\$13.55	\$0.00	\$55.96
	06/01/2019	\$35.58	\$7.70	\$13.55	\$0.00	\$56.83
	12/01/2019	\$36.44	\$7.70	\$13.55	\$0.00	\$57.69

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MASON TENDER <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	12/01/2017	\$32.83	\$7.70	\$13.60	\$0.00	\$54.13
	06/01/2018	\$33.67	\$7.70	\$13.60	\$0.00	\$54.97
	12/01/2018	\$34.51	\$7.70	\$13.60	\$0.00	\$55.81
	06/01/2019	\$35.38	\$7.70	\$13.60	\$0.00	\$56.68
	12/01/2019	\$36.24	\$7.70	\$13.60	\$0.00	\$57.54
	06/01/2020	\$37.13	\$7.70	\$13.60	\$0.00	\$58.43
	12/01/2020	\$38.02	\$7.70	\$13.60	\$0.00	\$59.32
	06/01/2021	\$38.94	\$7.70	\$13.60	\$0.00	\$60.24
	12/01/2021	\$39.85	\$7.70	\$13.60	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	12/01/2017	\$32.83	\$7.70	\$13.60	\$0.00	\$54.13
	06/01/2018	\$33.67	\$7.70	\$13.60	\$0.00	\$54.97
	12/01/2018	\$34.51	\$7.70	\$13.60	\$0.00	\$55.81
	06/01/2019	\$35.38	\$7.70	\$13.60	\$0.00	\$56.68
	12/01/2019	\$36.24	\$7.70	\$13.60	\$0.00	\$57.54
	06/01/2020	\$37.13	\$7.70	\$13.60	\$0.00	\$58.43
	12/01/2020	\$38.02	\$7.70	\$13.60	\$0.00	\$59.32
	06/01/2021	\$38.94	\$7.70	\$13.60	\$0.00	\$60.24
	12/01/2021	\$39.85	\$7.70	\$13.60	\$0.00	\$61.15
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>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	08/01/2017	\$39.82	\$10.75	\$17.80	\$0.00	\$68.37
	02/01/2018	\$40.36	\$10.75	\$17.80	\$0.00	\$68.91
	08/01/2018	\$41.44	\$10.75	\$17.93	\$0.00	\$70.12
	02/01/2019	\$41.95	\$10.75	\$17.93	\$0.00	\$70.63
	08/01/2019	\$43.03	\$10.75	\$18.07	\$0.00	\$71.85
	02/01/2020	\$43.54	\$10.75	\$18.07	\$0.00	\$72.36
	08/01/2020	\$44.62	\$10.75	\$18.22	\$0.00	\$73.59
	02/01/2021	\$45.13	\$10.75	\$18.22	\$0.00	\$74.10
	08/01/2021	\$46.25	\$10.75	\$18.38	\$0.00	\$75.38
	02/01/2022	\$46.72	\$10.75	\$18.38	\$0.00	\$75.85

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

Effective Date - 08/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.91	\$10.75	\$17.80	\$0.00	\$48.46
2	60	\$23.89	\$10.75	\$17.80	\$0.00	\$52.44
3	70	\$27.87	\$10.75	\$17.80	\$0.00	\$56.42
4	80	\$31.86	\$10.75	\$17.80	\$0.00	\$60.41
5	90	\$35.84	\$10.75	\$17.80	\$0.00	\$64.39

Effective Date - 02/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.18	\$10.75	\$17.80	\$0.00	\$48.73
2	60	\$24.22	\$10.75	\$17.80	\$0.00	\$52.77
3	70	\$28.25	\$10.75	\$17.80	\$0.00	\$56.80
4	80	\$32.29	\$10.75	\$17.80	\$0.00	\$60.84
5	90	\$36.32	\$10.75	\$17.80	\$0.00	\$64.87

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	08/01/2017	\$52.10	\$10.75	\$19.35	\$0.00	\$82.20
	02/01/2018	\$52.78	\$10.75	\$19.35	\$0.00	\$82.88
	08/01/2018	\$54.13	\$10.75	\$19.48	\$0.00	\$84.36
	02/01/2019	\$54.75	\$10.75	\$19.48	\$0.00	\$84.98
	08/01/2019	\$56.10	\$10.75	\$19.62	\$0.00	\$86.47
	02/01/2020	\$56.73	\$10.75	\$19.62	\$0.00	\$87.10
	08/01/2020	\$58.08	\$10.75	\$19.77	\$0.00	\$88.60
	02/01/2021	\$58.72	\$10.75	\$19.77	\$0.00	\$89.24
	08/01/2021	\$60.12	\$10.75	\$19.93	\$0.00	\$90.80
	02/01/2022	\$60.69	\$10.75	\$19.93	\$0.00	\$91.37

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 08/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.05	\$10.75	\$19.35	\$0.00	\$56.15
2	60	\$31.26	\$10.75	\$19.35	\$0.00	\$61.36
3	70	\$36.47	\$10.75	\$19.35	\$0.00	\$66.57
4	80	\$41.68	\$10.75	\$19.35	\$0.00	\$71.78
5	90	\$46.89	\$10.75	\$19.35	\$0.00	\$76.99

Effective Date - 02/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.39	\$10.75	\$19.35	\$0.00	\$56.49
2	60	\$31.67	\$10.75	\$19.35	\$0.00	\$61.77
3	70	\$36.95	\$10.75	\$19.35	\$0.00	\$67.05
4	80	\$42.22	\$10.75	\$19.35	\$0.00	\$72.32
5	90	\$47.50	\$10.75	\$19.35	\$0.00	\$77.60

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 2) <i>MILLWRIGHTS LOCAL 1121 - Zone 2</i>	10/01/2017	\$36.32	\$9.90	\$18.50	\$0.00	\$64.72
	04/01/2018	\$37.17	\$9.90	\$18.50	\$0.00	\$65.57
	10/01/2018	\$38.02	\$9.90	\$18.50	\$0.00	\$66.42
	04/01/2019	\$38.87	\$9.90	\$18.50	\$0.00	\$67.27

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - MILLWRIGHT - Local 1121 Zone 2
Effective Date - 10/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.98	\$9.90	\$5.31	\$0.00	\$35.19
2	65	\$23.61	\$9.90	\$15.13	\$0.00	\$48.64
3	75	\$27.24	\$9.90	\$16.10	\$0.00	\$53.24
4	85	\$30.87	\$9.90	\$17.06	\$0.00	\$57.83

Effective Date - 04/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$20.44	\$9.90	\$5.31	\$0.00	\$35.65
2	65	\$24.16	\$9.90	\$15.13	\$0.00	\$49.19
3	75	\$27.88	\$9.90	\$16.10	\$0.00	\$53.88
4	85	\$31.59	\$9.90	\$17.06	\$0.00	\$58.55

Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
LABORERS - ZONE 2	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	12/01/2017	\$23.24	\$10.50	\$15.50	\$0.00	\$49.24
OPERATING ENGINEERS LOCAL 4	For apprentice rates see "Apprentice- OPERATING ENGINEERS"					
OILER (TRUCK CRANES, GRADALLS)	12/01/2017	\$27.40	\$10.50	\$15.50	\$0.00	\$53.40
OPERATING ENGINEERS LOCAL 4	For apprentice rates see "Apprentice- OPERATING ENGINEERS"					
OTHER POWER DRIVEN EQUIPMENT - CLASS II	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
OPERATING ENGINEERS LOCAL 4	For apprentice rates see "Apprentice- OPERATING ENGINEERS"					
PAINTER (BRIDGES/TANKS)	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36
PAINTERS LOCAL 35 - ZONE 2						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2017	\$42.31	\$7.85	\$16.10	\$0.00	\$66.26
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* If 30% or more of surfaces to be painted are new construction,

NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

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

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.16	\$7.85	\$0.00	\$0.00	\$29.01
2	55	\$23.27	\$7.85	\$3.66	\$0.00	\$34.78
3	60	\$25.39	\$7.85	\$3.99	\$0.00	\$37.23
4	65	\$27.50	\$7.85	\$4.32	\$0.00	\$39.67
5	70	\$29.62	\$7.85	\$14.11	\$0.00	\$51.58
6	75	\$31.73	\$7.85	\$14.44	\$0.00	\$54.02
7	80	\$33.85	\$7.85	\$14.77	\$0.00	\$56.47
8	90	\$38.08	\$7.85	\$15.44	\$0.00	\$61.37

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32
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PAINTERS LOCAL 35 - ZONE 2

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.19	\$7.85	\$0.00	\$0.00	\$28.04
2	55	\$22.20	\$7.85	\$3.66	\$0.00	\$33.71
3	60	\$24.22	\$7.85	\$3.99	\$0.00	\$36.06
4	65	\$26.24	\$7.85	\$4.32	\$0.00	\$38.41
5	70	\$28.26	\$7.85	\$14.11	\$0.00	\$50.22
6	75	\$30.28	\$7.85	\$14.44	\$0.00	\$52.57
7	80	\$32.30	\$7.85	\$14.77	\$0.00	\$54.92
8	90	\$36.33	\$7.85	\$15.44	\$0.00	\$59.62

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (TRAFFIC MARKINGS)	12/01/2017	\$32.83	\$7.70	\$13.60	\$0.00	\$54.13
LABORERS - ZONE 2	06/01/2018	\$33.67	\$7.70	\$13.60	\$0.00	\$54.97
	12/01/2018	\$34.51	\$7.70	\$13.60	\$0.00	\$55.81
	06/01/2019	\$35.38	\$7.70	\$13.60	\$0.00	\$56.68
	12/01/2019	\$36.24	\$7.70	\$13.60	\$0.00	\$57.54
	06/01/2020	\$37.13	\$7.70	\$13.60	\$0.00	\$58.43
	12/01/2020	\$38.02	\$7.70	\$13.60	\$0.00	\$59.32
	06/01/2021	\$38.94	\$7.70	\$13.60	\$0.00	\$60.24
	12/01/2021	\$39.85	\$7.70	\$13.60	\$0.00	\$61.15

For Apprentice rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86
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* If 30% or more of surfaces to be painted are new construction,
NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW						
Effective Date - 01/01/2017						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.46	\$7.85	\$0.00	\$0.00	\$28.31
2	55	\$22.50	\$7.85	\$3.66	\$0.00	\$34.01
3	60	\$24.55	\$7.85	\$3.99	\$0.00	\$36.39
4	65	\$26.59	\$7.85	\$4.32	\$0.00	\$38.76
5	70	\$28.64	\$7.85	\$14.11	\$0.00	\$50.60
6	75	\$30.68	\$7.85	\$14.44	\$0.00	\$52.97
7	80	\$32.73	\$7.85	\$14.77	\$0.00	\$55.35
8	90	\$36.82	\$7.85	\$15.44	\$0.00	\$60.11

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)	01/01/2017	\$38.97	\$7.85	\$16.10	\$0.00	\$62.92
PAINTERS LOCAL 35 - ZONE 2						

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.49	\$7.85	\$0.00	\$0.00	\$27.34
2	55	\$21.43	\$7.85	\$3.66	\$0.00	\$32.94
3	60	\$23.38	\$7.85	\$3.99	\$0.00	\$35.22
4	65	\$25.33	\$7.85	\$4.32	\$0.00	\$37.50
5	70	\$27.28	\$7.85	\$14.11	\$0.00	\$49.24
6	75	\$29.23	\$7.85	\$14.44	\$0.00	\$51.52
7	80	\$31.18	\$7.85	\$14.77	\$0.00	\$53.80
8	90	\$35.07	\$7.85	\$15.44	\$0.00	\$58.36

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PANEL & PICKUP TRUCKS DRIVER	12/01/2012	\$30.28	\$9.07	\$8.00	\$0.00	\$47.35
TEAMSTERS JOINT COUNCIL NO. 10 ZONE B						

PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2017	\$44.27	\$9.90	\$21.15	\$0.00	\$75.32
PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99

For apprentice rates see "Apprentice- PILE DRIVER"

PILE DRIVER	08/01/2017	\$44.27	\$9.90	\$21.15	\$0.00	\$75.32
PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2018	\$46.57	\$9.90	\$21.15	\$0.00	\$77.62
	08/01/2019	\$48.94	\$9.90	\$21.15	\$0.00	\$79.99

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - PILE DRIVER - Local 56 Zone 1
Effective Date - 08/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.14	\$9.90	\$21.15	\$0.00	\$53.19
2	60	\$26.56	\$9.90	\$21.15	\$0.00	\$57.61
3	70	\$30.99	\$9.90	\$21.15	\$0.00	\$62.04
4	75	\$33.20	\$9.90	\$21.15	\$0.00	\$64.25
5	80	\$35.42	\$9.90	\$21.15	\$0.00	\$66.47
6	80	\$35.42	\$9.90	\$21.15	\$0.00	\$66.47
7	90	\$39.84	\$9.90	\$21.15	\$0.00	\$70.89
8	90	\$39.84	\$9.90	\$21.15	\$0.00	\$70.89

Effective Date - 08/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.29	\$9.90	\$21.15	\$0.00	\$54.34
2	60	\$27.94	\$9.90	\$21.15	\$0.00	\$58.99
3	70	\$32.60	\$9.90	\$21.15	\$0.00	\$63.65
4	75	\$34.93	\$9.90	\$21.15	\$0.00	\$65.98
5	80	\$37.26	\$9.90	\$21.15	\$0.00	\$68.31
6	80	\$37.26	\$9.90	\$21.15	\$0.00	\$68.31
7	90	\$41.91	\$9.90	\$21.15	\$0.00	\$72.96
8	90	\$41.91	\$9.90	\$21.15	\$0.00	\$72.96

Notes:
Apprentice to Journeyworker Ratio:1:5

PIPEFITTER & STEAMFITTER	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
PIPEFITTERS LOCAL 537						

Apprentice - PIPEFITTER - Local 537
Effective Date - 03/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.48	\$9.70	\$7.50	\$0.00	\$37.68
2	45	\$23.04	\$9.70	\$18.14	\$0.00	\$50.88
3	60	\$30.71	\$9.70	\$18.14	\$0.00	\$58.55
4	70	\$35.83	\$9.70	\$18.14	\$0.00	\$63.67
5	80	\$40.95	\$9.70	\$18.14	\$0.00	\$68.79

Notes:

** 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.
Refrig/AC Mechanic **1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

Apprentice to Journeyworker Ratio:**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40

For apprentice rates see "Apprentice- LABORER"

PLUMBERS & GASFITTERS <i>PLUMBERS & GASFITTERS LOCAL 12</i>	09/01/2017	\$53.94	\$11.57	\$15.26	\$0.00	\$80.77
	03/01/2018	\$55.44	\$11.57	\$15.26	\$0.00	\$82.27
	09/01/2018	\$56.94	\$11.57	\$15.26	\$0.00	\$83.77
	03/01/2019	\$58.44	\$11.57	\$15.26	\$0.00	\$85.27
	09/01/2019	\$59.94	\$11.57	\$15.26	\$0.00	\$86.77
	03/01/2020	\$61.44	\$11.57	\$15.26	\$0.00	\$88.27
	09/01/2020	\$62.94	\$11.57	\$15.26	\$0.00	\$89.77
	03/01/2021	\$64.44	\$11.57	\$15.26	\$0.00	\$91.27

Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$18.88	\$11.57	\$5.54	\$0.00	\$35.99
2	40	\$21.58	\$11.57	\$6.29	\$0.00	\$39.44
3	55	\$29.67	\$11.57	\$8.53	\$0.00	\$49.77
4	65	\$35.06	\$11.57	\$10.03	\$0.00	\$56.66
5	75	\$40.46	\$11.57	\$11.52	\$0.00	\$63.55

Effective Date - 03/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.40	\$11.57	\$5.54	\$0.00	\$36.51
2	40	\$22.18	\$11.57	\$6.29	\$0.00	\$40.04
3	55	\$30.49	\$11.57	\$8.53	\$0.00	\$50.59
4	65	\$36.04	\$11.57	\$10.03	\$0.00	\$57.64
5	75	\$41.58	\$11.57	\$11.52	\$0.00	\$64.67

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$60.10 Step5 with lic\$66.99

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) <i>PIPEFITTERS LOCAL 537</i>	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.83	\$7.70	\$13.60	\$0.00	\$55.13
	06/01/2018	\$34.67	\$7.70	\$13.60	\$0.00	\$55.97
	12/01/2018	\$35.51	\$7.70	\$13.60	\$0.00	\$56.81
	06/01/2019	\$36.38	\$7.70	\$13.60	\$0.00	\$57.68
	12/01/2019	\$37.24	\$7.70	\$13.60	\$0.00	\$58.54
	06/01/2020	\$38.13	\$7.70	\$13.60	\$0.00	\$59.43
	12/01/2020	\$39.02	\$7.70	\$13.60	\$0.00	\$60.32
	06/01/2021	\$39.94	\$7.70	\$13.60	\$0.00	\$61.24
	12/01/2021	\$40.85	\$7.70	\$13.60	\$0.00	\$62.15
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$31.80	\$10.50	\$15.50	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY MIX CONCRETE DRIVERS after 4/30/10 (Drivers Hired After 4/30/2010) <i>TEAMSTERS LOCAL 25c</i>	07/01/2017	\$28.18	\$8.48	\$9.72	\$0.00	\$46.38
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 25c</i>	07/01/2017	\$29.48	\$8.48	\$9.72	\$0.00	\$47.68
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	06/01/2016	\$25.32	\$9.80	\$16.82	\$0.00	\$51.94
RESIDENTIAL WOOD FRAME CARPENTER **	10/01/2017	\$26.25	\$7.07	\$7.86	\$0.00	\$41.18
** 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. <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2018	\$26.67	\$7.07	\$7.86	\$0.00	\$41.60
	10/01/2018	\$27.09	\$7.07	\$7.86	\$0.00	\$42.02
	04/01/2019	\$27.52	\$7.07	\$7.86	\$0.00	\$42.45
	10/01/2019	\$27.95	\$7.07	\$7.86	\$0.00	\$42.88
As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.						

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER (Residential Wood Frame) - Zone 2
Effective Date - 10/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$15.75	\$7.07	\$0.00	\$0.00	\$22.82
2	60	\$15.75	\$7.07	\$0.00	\$0.00	\$22.82
3	65	\$17.06	\$7.07	\$7.86	\$0.00	\$31.99
4	70	\$18.38	\$7.07	\$7.86	\$0.00	\$33.31
5	75	\$19.69	\$7.07	\$7.86	\$0.00	\$34.62
6	80	\$21.00	\$7.07	\$7.86	\$0.00	\$35.93
7	85	\$22.31	\$7.07	\$7.86	\$0.00	\$37.24
8	90	\$23.63	\$7.07	\$7.86	\$0.00	\$38.56

Effective Date - 04/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.00	\$7.07	\$0.00	\$0.00	\$23.07
2	60	\$16.00	\$7.07	\$0.00	\$0.00	\$23.07
3	65	\$17.34	\$7.07	\$7.86	\$0.00	\$32.27
4	70	\$18.67	\$7.07	\$7.86	\$0.00	\$33.60
5	75	\$20.00	\$7.07	\$7.86	\$0.00	\$34.93
6	80	\$21.34	\$7.07	\$7.86	\$0.00	\$36.27
7	85	\$22.67	\$7.07	\$7.86	\$0.00	\$37.60
8	90	\$24.00	\$7.07	\$7.86	\$0.00	\$38.93

Notes:
Apprentice to Journeyworker Ratio:1:5

RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofing Waterproofing &Roofing Damproofing) <i>ROOFERS LOCAL 33</i>	08/01/2017	\$41.36	\$11.20	\$14.80	\$0.00	\$67.36
	02/01/2018	\$42.51	\$11.20	\$14.80	\$0.00	\$68.51
	08/01/2018	\$43.61	\$11.20	\$14.80	\$0.00	\$69.61
	02/01/2019	\$44.76	\$11.20	\$14.80	\$0.00	\$70.76

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ROOFER - Local 33
Effective Date - 08/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.68	\$11.20	\$3.44	\$0.00	\$35.32
2	60	\$24.82	\$11.20	\$14.80	\$0.00	\$50.82
3	65	\$26.88	\$11.20	\$14.80	\$0.00	\$52.88
4	75	\$31.02	\$11.20	\$14.80	\$0.00	\$57.02
5	85	\$35.16	\$11.20	\$14.80	\$0.00	\$61.16

Effective Date - 02/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.26	\$11.20	\$3.44	\$0.00	\$35.90
2	60	\$25.51	\$11.20	\$14.80	\$0.00	\$51.51
3	65	\$27.63	\$11.20	\$14.80	\$0.00	\$53.63
4	75	\$31.88	\$11.20	\$14.80	\$0.00	\$57.88
5	85	\$36.13	\$11.20	\$14.80	\$0.00	\$62.13

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.
 (Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE <i>ROOFERS LOCAL 33</i>	08/01/2017	\$41.61	\$11.20	\$14.80	\$0.00	\$67.61
	02/01/2018	\$42.76	\$11.20	\$14.80	\$0.00	\$68.76
	08/01/2018	\$43.86	\$11.20	\$14.80	\$0.00	\$69.86
	02/01/2019	\$45.01	\$11.20	\$14.80	\$0.00	\$71.01
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	08/01/2017	\$43.83	\$11.45	\$24.03	\$2.38	\$81.69
	02/01/2018	\$44.98	\$11.45	\$24.03	\$2.38	\$82.84

Classification

**Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate**

Apprentice - SHEET METAL WORKER - Local 17-A
Effective Date - 08/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.53	\$11.45	\$5.61	\$0.00	\$34.59
2	40	\$17.53	\$11.45	\$5.61	\$0.00	\$34.59
3	45	\$19.72	\$11.45	\$10.76	\$1.26	\$43.19
4	45	\$19.72	\$11.45	\$10.76	\$1.26	\$43.19
5	50	\$21.92	\$11.45	\$11.71	\$1.35	\$46.43
6	50	\$21.92	\$11.45	\$11.96	\$1.36	\$46.69
7	60	\$26.30	\$11.45	\$13.61	\$1.54	\$52.90
8	65	\$28.49	\$11.45	\$14.56	\$1.64	\$56.14
9	75	\$32.87	\$11.45	\$16.47	\$1.82	\$62.61
10	85	\$37.26	\$11.45	\$17.87	\$2.00	\$68.58

Effective Date - 02/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.99	\$11.45	\$5.24	\$0.00	\$34.68
2	40	\$17.99	\$11.45	\$5.24	\$0.00	\$34.68
3	45	\$20.24	\$11.45	\$10.31	\$1.27	\$43.27
4	45	\$20.24	\$11.45	\$10.31	\$1.27	\$43.27
5	50	\$22.49	\$11.45	\$11.21	\$1.37	\$46.52
6	50	\$22.49	\$11.45	\$11.46	\$1.38	\$46.78
7	60	\$26.99	\$11.45	\$13.02	\$1.56	\$53.02
8	65	\$29.24	\$11.45	\$13.93	\$1.67	\$56.29
9	75	\$33.74	\$11.45	\$15.74	\$1.85	\$62.78
10	85	\$38.23	\$11.45	\$17.05	\$2.03	\$68.76

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
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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 <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2016	\$32.73	\$10.91	\$10.89	\$0.00	\$54.53
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	10/01/2017	\$57.58	\$8.77	\$17.20	\$0.00	\$83.55
	01/01/2018	\$57.58	\$9.12	\$17.40	\$0.00	\$84.10
	03/01/2018	\$59.08	\$9.12	\$17.40	\$0.00	\$85.60
	10/01/2018	\$60.58	\$9.12	\$17.40	\$0.00	\$87.10
	01/01/2019	\$60.58	\$9.47	\$17.60	\$0.00	\$87.65
	03/01/2019	\$62.08	\$9.47	\$17.60	\$0.00	\$89.15
	10/01/2019	\$63.58	\$9.47	\$17.60	\$0.00	\$90.65
	03/01/2020	\$65.08	\$9.47	\$17.60	\$0.00	\$92.15
	10/01/2020	\$66.58	\$9.47	\$17.60	\$0.00	\$93.65
	03/01/2021	\$68.08	\$9.47	\$17.60	\$0.00	\$95.15

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1
Effective Date - 10/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$20.15	\$8.77	\$8.70	\$0.00	\$37.62
2	40	\$23.03	\$8.77	\$8.70	\$0.00	\$40.50
3	45	\$25.91	\$8.77	\$8.70	\$0.00	\$43.38
4	50	\$28.79	\$8.77	\$8.70	\$0.00	\$46.26
5	55	\$31.67	\$8.77	\$8.70	\$0.00	\$49.14
6	60	\$34.55	\$8.77	\$10.20	\$0.00	\$53.52
7	65	\$37.43	\$8.77	\$10.20	\$0.00	\$56.40
8	70	\$40.31	\$8.77	\$10.20	\$0.00	\$59.28
9	75	\$43.19	\$8.77	\$10.20	\$0.00	\$62.16
10	80	\$46.06	\$877.00	\$10.20	\$0.00	\$933.26

Effective Date - 01/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$20.15	\$9.12	\$8.90	\$0.00	\$38.17
2	40	\$23.03	\$9.12	\$8.90	\$0.00	\$41.05
3	45	\$25.91	\$9.12	\$8.90	\$0.00	\$43.93
4	50	\$28.79	\$9.12	\$8.90	\$0.00	\$46.81
5	55	\$31.67	\$9.12	\$8.90	\$0.00	\$49.69
6	60	\$34.55	\$9.12	\$10.40	\$0.00	\$54.07
7	65	\$37.43	\$9.12	\$10.40	\$0.00	\$56.95
8	70	\$40.31	\$9.12	\$10.40	\$0.00	\$59.83
9	75	\$43.19	\$9.12	\$10.40	\$0.00	\$62.71
10	80	\$46.06	\$9.12	\$10.40	\$0.00	\$65.58

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 <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 103</i>	09/01/2017	\$36.96	\$13.00	\$15.62	\$0.00	\$65.58
	03/01/2018	\$37.61	\$13.00	\$15.93	\$0.00	\$66.54
	09/01/2018	\$38.51	\$13.00	\$15.96	\$0.00	\$67.47
	03/01/2019	\$39.40	\$13.00	\$15.98	\$0.00	\$68.38

Classification

**Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate**

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103

Effective Date - 09/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$14.78	\$13.00	\$0.44	\$0.00	\$28.22
2	40	\$14.78	\$13.00	\$0.44	\$0.00	\$28.22
3	45	\$16.63	\$13.00	\$12.55	\$0.00	\$42.18
4	45	\$16.63	\$13.00	\$12.55	\$0.00	\$42.18
5	50	\$18.48	\$13.00	\$12.82	\$0.00	\$44.30
6	55	\$20.33	\$13.00	\$13.10	\$0.00	\$46.43
7	60	\$22.18	\$13.00	\$13.39	\$0.00	\$48.57
8	65	\$24.02	\$13.00	\$13.66	\$0.00	\$50.68
9	70	\$25.87	\$13.00	\$13.95	\$0.00	\$52.82
10	75	\$27.72	\$13.00	\$14.22	\$0.00	\$54.94

Effective Date - 03/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.04	\$13.00	\$0.45	\$0.00	\$28.49
2	40	\$15.04	\$13.00	\$0.45	\$0.00	\$28.49
3	45	\$16.92	\$13.00	\$12.74	\$0.00	\$42.66
4	45	\$16.92	\$13.00	\$12.74	\$0.00	\$42.66
5	50	\$18.81	\$13.00	\$13.03	\$0.00	\$44.84
6	55	\$20.69	\$13.00	\$13.32	\$0.00	\$47.01
7	60	\$22.57	\$13.00	\$13.61	\$0.00	\$49.18
8	65	\$24.45	\$13.00	\$13.90	\$0.00	\$51.35
9	70	\$26.33	\$13.00	\$14.19	\$0.00	\$53.52
10	75	\$28.21	\$13.00	\$14.48	\$0.00	\$55.69

Notes:

Apprentice to Journeyworker Ratio:1:1

TERRAZZO FINISHERS	08/01/2017	\$51.00	\$10.75	\$19.35	\$0.00	\$81.10
<i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2018	\$51.68	\$10.75	\$19.35	\$0.00	\$81.78
	08/01/2018	\$53.03	\$10.75	\$19.48	\$0.00	\$83.26
	02/01/2019	\$53.67	\$10.75	\$19.48	\$0.00	\$83.90
	08/01/2019	\$55.02	\$10.75	\$19.62	\$0.00	\$85.39
	02/01/2020	\$55.66	\$10.75	\$19.62	\$0.00	\$86.03
	08/01/2020	\$57.01	\$10.75	\$19.77	\$0.00	\$87.53
	02/01/2021	\$57.65	\$10.75	\$19.77	\$0.00	\$88.17
	08/01/2021	\$59.05	\$10.75	\$19.93	\$0.00	\$89.73
	02/01/2022	\$59.64	\$10.75	\$19.93	\$0.00	\$90.32

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile
Effective Date - 08/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.50	\$10.75	\$19.35	\$0.00	\$55.60
2	60	\$30.60	\$10.75	\$19.35	\$0.00	\$60.70
3	70	\$35.70	\$10.75	\$19.35	\$0.00	\$65.80
4	80	\$40.80	\$10.75	\$19.35	\$0.00	\$70.90
5	90	\$45.90	\$10.75	\$19.35	\$0.00	\$76.00

Effective Date - 02/01/2018

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.84	\$10.75	\$19.35	\$0.00	\$55.94
2	60	\$31.01	\$10.75	\$19.35	\$0.00	\$61.11
3	70	\$36.18	\$10.75	\$19.35	\$0.00	\$66.28
4	80	\$41.34	\$10.75	\$19.35	\$0.00	\$71.44
5	90	\$46.51	\$10.75	\$19.35	\$0.00	\$76.61

Notes:
Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$37.70	\$7.60	\$14.35	\$0.00	\$59.65
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.42	\$7.60	\$14.35	\$0.00	\$58.37
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2016	\$36.30	\$7.60	\$14.35	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2017	\$46.17	\$10.50	\$15.50	\$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>	12/01/2016	\$33.02	\$10.91	\$10.89	\$0.00	\$54.82
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2016	\$48.58	\$7.60	\$14.75	\$0.00	\$70.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2016	\$50.58	\$7.60	\$14.75	\$0.00	\$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2016	\$40.65	\$7.60	\$14.75	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2016	\$42.65	\$7.60	\$14.75	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
VAC-HAUL TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
WAGON DRILL OPERATOR LABORERS - ZONE 2	12/01/2017	\$33.08	\$7.70	\$13.60	\$0.00	\$54.38
	06/01/2018	\$33.92	\$7.70	\$13.60	\$0.00	\$55.22
	12/01/2018	\$34.76	\$7.70	\$13.60	\$0.00	\$56.06
	06/01/2019	\$35.63	\$7.70	\$13.60	\$0.00	\$56.93
	12/01/2019	\$36.49	\$7.70	\$13.60	\$0.00	\$57.79
	06/01/2020	\$37.38	\$7.70	\$13.60	\$0.00	\$58.68
	12/01/2020	\$38.27	\$7.70	\$13.60	\$0.00	\$59.57
	06/01/2021	\$39.19	\$7.70	\$13.60	\$0.00	\$60.49
	12/01/2021	\$40.10	\$7.70	\$13.60	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR OPERATING ENGINEERS LOCAL 4	12/01/2017	\$46.63	\$10.50	\$15.50	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER PLUMBERS & GASFITTERS LOCAL 12	09/01/2017	\$53.94	\$11.57	\$15.26	\$0.00	\$80.77
	03/01/2018	\$55.44	\$11.57	\$15.26	\$0.00	\$82.27
	09/01/2018	\$56.94	\$11.57	\$15.26	\$0.00	\$83.77
	03/01/2019	\$58.44	\$11.57	\$15.26	\$0.00	\$85.27
	09/01/2019	\$59.94	\$11.57	\$15.26	\$0.00	\$86.77
	03/01/2020	\$61.44	\$11.57	\$15.26	\$0.00	\$88.27
	09/01/2020	\$62.94	\$11.57	\$15.26	\$0.00	\$89.77
	03/01/2021	\$64.44	\$11.57	\$15.26	\$0.00	\$91.27
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
Outside Electrical - East						
CABLE TECHNICIAN (Power Zone) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$27.14	\$7.75	\$1.81	\$0.00	\$36.70
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$38.45	\$7.75	\$9.53	\$0.00	\$55.73
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$31.66	\$7.75	\$9.44	\$0.00	\$48.85
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$38.45	\$7.75	\$13.61	\$0.00	\$59.81
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$33.92	\$7.75	\$10.21	\$0.00	\$51.88
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$24.88	\$7.75	\$1.75	\$0.00	\$34.38
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	09/03/2017	\$20.35	\$7.75	\$1.61	\$0.00	\$29.71
For apprentice rates see "Apprentice- LINEMAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/03/2017	\$45.23	\$7.75	\$16.61	\$0.00	\$69.59

Apprentice - LINEMAN (Outside Electrical) - East Local 104

Effective Date - 09/03/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$27.14	\$7.75	\$3.31	\$0.00	\$38.20
2	65	\$29.40	\$7.75	\$3.38	\$0.00	\$40.53
3	70	\$31.66	\$7.75	\$3.45	\$0.00	\$42.86
4	75	\$33.92	\$7.75	\$5.02	\$0.00	\$46.69
5	80	\$36.18	\$7.75	\$5.09	\$0.00	\$49.02
6	85	\$38.45	\$7.75	\$5.15	\$0.00	\$51.35
7	90	\$40.71	\$7.75	\$7.22	\$0.00	\$55.68

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	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>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/01/2016	\$27.31	\$4.25	\$3.07	\$0.00	\$34.63
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$18.51	\$3.55	\$0.00	\$0.00	\$22.06
<p>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.</p>						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/31/2016	\$16.32	\$3.55	\$0.00	\$0.00	\$19.87
<p>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.</p>						

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-11L.

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

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.

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SUPPLEMENTARY CONDITIONS

PART II - STATE AND LEGAL GOVERNMENT PROVISIONS

State and Local Government provisions included herein, have been selected from those to which specific references have been made elsewhere in the Contract Documents. Each and every other provision of law or clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein and our provision contrary to such law or clause shall be deemed null and void. If through mistake or otherwise any such provision is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

1.0 State Government Provisions were current as of October 26, 2015.

1.1 Contractor and Owner agree that the following provisions of the Commonwealth of Massachusetts apply to the work to be performed under this Contract, and that these provisions supersede any conflicting provisions of said Contract.

1.1.1 CHAP. 30 M.G.L, SECTION 39F

Construction contracts; assignment and subrogation; Subcontractor defined; enforcement of claim for direct payment; deposit, reduction of disputed amounts

(1) Every contract awarded pursuant to sections forty four A to L, inclusive of chapter one hundred and forty nine, shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the General Contractor and each Subcontractor.

(a) Forthwith after the General Contractor receives payment on account of a periodic estimate, the General Contractor shall pay to each Subcontractor the amount paid for the labor performed and the materials furnished by that Subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the General Contractor.

(b) Not later than the sixty fifth day after each Subcontractor substantially completes his work in accordance with the Plans and Specifications, the entire balance due under the subcontract less amounts retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the Subcontractor; and the Awarding Authority shall pay that amount to the General Contractor. The General Contractor shall forthwith pay to the Subcontractor the full amount received from the Awarding Authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the General Contractor.

(c) Each payment made by the Awarding Authority to the General Contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a Subcontractor shall be made to the General Contractor for the account of that Subcontractor; and the Awarding Authority shall take reasonable steps to compel the General Contractor to make each

such payment to each such Subcontractor. If the Awarding Authority has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the General Contractor or which is to be included in a payment to the General Contractor for payment to the Subcontractor as provided in sub paragraphs (a) and (b), the Awarding Authority shall act upon the demand as provided in this section.

(d) If, within seventy (70) days after the Subcontractor has Substantially Completed the subcontract work, the Subcontractor has not received from the General Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the General Contractor at the same time. The demand shall contain a detailed breakdown of the balanced due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after Substantial Completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the Subcontractor has substantially completed the subcontract work. Within ten (10) days after the Subcontractor has delivered or so mailed the demand to the Awarding Authority and delivered or so mailed a copy to the General Contractor, the General Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor and of the amount due for each claim made by the General Contractor against the Subcontractor.

(e) Within fifteen (15) days after receipt of the demand by the Awarding Authority, but in no event prior to the seventieth day after Substantial Completion of the subcontract work, the Awarding Authority shall make direct payment to the Subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor, less any amount (i) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the General Contractor in the sworn reply; provided, that the Awarding Authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The Awarding Authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this sub paragraph.

(f) The Awarding Authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the General Contractor and the Subcontractor in a bank in Massachusetts selected by the Awarding Authority or agreed upon by the General Contractor and the Subcontractor and shall notify the General Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the General Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest bearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the General Contractor at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the General Contractor and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the Awarding Authority to the General Contractor to the extent of such payment.

(h) The Awarding Authority shall deduct from payments to a General Contractor amounts which, together with the deposits in interest bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the General Contractor.

(i) If the Subcontractor does not receive payment as provided in subparagraph (a) or if the General Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (a), the Subcontractor may demand direct payment by following the procedure in subparagraph (d) and the General Contractor may file a sworn reply as provided in that same subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the General Contractor. Thereafter the Awarding Authority shall proceed as provided in subparagraph (e), (f), (g) and (h).

(2) Any assignment by a Subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of section twenty nine of chapter one hundred forty nine shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the Awarding Authority or which are on deposit pursuant to subparagraph (f) of paragraph (1) shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) "Subcontractor" as used in this section (i) for contracts awarded as provided in sections forty four A to forty four H, inclusive, of chapter one hundred forty nine shall mean a person who files a sub bid and receives a subcontract as a result of that filed sub bid or who is approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the General Contractor, (ii) for contracts awarded as provided in Paragraph (a) of section thirty nine M of chapter thirty shall mean a person approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the General Contractor, and (iii) for contracts with the Commonwealth not awarded as provided in forty four A to forty four H, inclusive, of chapter one hundred forty nine shall also mean a person contracting with the General Contractor to supply materials used or employed in a public works project for a price in excess of five thousand dollars (\$5,000.00).

(4) A General Contractor or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited as provided in subparagraph (f) of paragraph (1) by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in subparagraph (f) of paragraph (1) by a petition in equity in the superior court against the Awarding Authority and the General Contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. Sections fifty nine and fifty nine B of chapter two hundred thirty one² shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to sections fifty nine and fifty nine B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors or the same General Contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same General Contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a Subcontractor filing a demand for direct payment for which no funds due the General Contractor are available for direct payment shall have a right to file a petition in court of equity against the Awarding Authority claiming a demand for direct payment is premature and such Subcontractor must file the petition before the Awarding Authority has made a direct payment to the Subcontractor and has made a deposit of the disputed portion as provided in part (iii) of subparagraph (e) and in subparagraph (f) of paragraph (1).

(5) In any petition to collect any claim for which a Subcontractor has filed a demand for direct payment the court shall, upon motion of the General Contractor, reduce by the amount of any deposit of a disputed amount by the Awarding Authority as provided in part (iii) of subparagraph (e) and in subparagraph (f) of paragraph (1) any amount held under a trustee writ or pursuant to a restraining order or injunction.

1.1.2 CHAP. 30 M.G.L. SECTION 39G

Completion of public works; semi-final and final estimates; payments; extra work; disputed items

Upon Substantial Completion of the work required by a contract with the Commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges and other highway structures, sewers and water mains, airports and other public works, the Contractor shall present in writing to the Awarding Authority its certification that the work has been Substantially Completed. Within twenty one (21) days thereafter, the Awarding Authority shall present to the Contractor either a written declaration that the work has been Substantially Completed or an itemized list of incomplete or unsatisfactory work items required by the contract sufficient to demonstrate that the work has not been Substantially Completed. The Awarding Authority may include with such list a notice setting forth a reasonable time, which shall not in any event be prior to the contract completion date, within which the Contractor must achieve Substantial Completion of the work. In the event that the Awarding Authority fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the Contractor's certification within the twenty one day period, the Contractor's certification shall take effect as the Awarding Authority's declaration that the work has been Substantially Completed.

Within sixty-five (65) days after the effective date of a declaration of a substantial completion, the awarding authority shall prepare and forthwith send to the contractor for acceptance a substantial completion estimate for the quantity and price of the work done and all but one per cent retainage, if held by the awarding authority, on that work, including the quantity, price and all but one per cent retainage, if held by the awarding authority, for the undisputed part of each work item and extra work item in dispute but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory work items and less the total periodic payments made to date for the work. The awarding authority also shall deduct from the substantial completion estimate an amount equal to the sum of all demands for direct payment filed by subcontractors and not yet paid to subcontractors or deposited in joint accounts pursuant to section thirty-nine F, but no contract subject to said section thirty-nine F shall contain any other provision authorizing the awarding authority to deduct any amount by virtue of claims asserted against the contract by subcontractors, material suppliers or others.

If the Awarding Authority fails to prepare and send to the Contractor any Substantial Completion estimate required by this section on or before the date herein above set forth, the Awarding Authority shall pay to the Contractor interest on the amount which would have been due to the Contractor pursuant to such Substantial Completion estimate at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the Awarding Authority sends that Substantial Completion estimate to the Contractor for acceptance or to the date of payment therefor, whichever occurs first. The Awarding Authority shall include the amount of such interest in the Substantial Completion Estimate.

Within fifteen (15) days after the effective date of the declaration of Substantial Completion, the Awarding Authority shall send to the Contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the Contractor shall complete all such work items within forty five (45) days after the receipt of such list or before the then contract completion date, whichever is later. If the Contractor fails to complete such work within such time, the Awarding Authority may, subsequent to seven (7) days written notice to the Contractor by certified mail, return receipt requested, terminate the contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the Contractor.

Within thirty (30) days after receipt by the awarding authority of a notice from the contractor stating that all of the work required by the contract has been completed, the awarding authority shall prepare and forthwith send to the contractor for acceptance a final estimate for the quantity and price of the work done and all retainage, if held by the awarding authority, on that work less all payments made to date, unless the awarding authority's inspection shows that work items required by the contract remain incomplete or unsatisfactory, or that documentation required by the contract has not been completed. If the awarding authority fails to prepare and send to the contractor the final estimate within thirty (30) days after receipt of notice of completion, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth day after such completion until the date on which the awarding authority sends the final estimate to the contractor for acceptance or the date of payment therefor, whichever occurs first, provided that the awarding authority's inspection shows that no work items required by the contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

The Awarding Authority shall pay the amount due pursuant to any periodic, Substantial Completion or final estimate within thirty five (35) days after receipt of written acceptance for such estimate from the Contractor and shall pay interest on the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifth (35th) day to the date of payment. Within fifteen (15) days, thirty (30) days in the case of the Commonwealth, after receipt from the Contractor, at the place designated by the Awarding Authority, if such place is so designated, of a periodic estimate requesting payment of the amount due for the preceding periodic estimate period, the Awarding Authority shall make a periodic payment to the Contractor for the work performed during the preceding periodic estimate period and for the materials not incorporated in the work but delivered and suitably stored at the site, or at some location agreed upon in writing, to which the Contractor has title or to which a Subcontractor has title and has authorized the Contractor to transfer title to the Awarding Authority, upon certification by the Contractor that he is the lawful owner and that the materials are free from all encumbrances. The Awarding Authority shall include with each such payment interest on the amount due pursuant to such periodic estimate at the rate herein above provided from the due date. In the case of periodic payments, the contracting authority may deduct from its payment a retention based on its estimate of the fair value of its claims against the Contractor, a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of section thirty nine F, and a retention to secure satisfactory performance of the contractual work not exceeding five per cent (5%) of the approved amount of any periodic payment, and the same right to retention shall apply to bonded Subcontractors entitled to direct payment under section thirty nine F of chapter thirty; provided, that a five per cent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

No periodic, Substantial Completion or final estimate or acceptance or payment thereof shall bar a Contractor from reserving all rights to dispute the quantity and amount of, or the failure of the Awarding Authority to approve a quantity and amount of, all or part of any work item or extra work item.

Substantial Completion, for the purposes of this section, shall mean either that the work required by the Contract has been completed except for work having a contract price of less than one per cent (1%) of the then adjusted total contract price, or substantially all of the work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the work required by the Contract.

1.1.3 CHAP. 30 MGL SECTION 39K

Public building construction contracts; payments

Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the Commonwealth, or by any County, City, Town, District, Board, Commission or other public body, when the amount is more than five thousand dollars (\$5,000.00) in the case of the Commonwealth and more than two thousand dollars (\$2,000.00) in the case of any County, City, Town, District, Board, Commission or other public body, shall contain the following paragraph:— Within fifteen (15) days (thirty (30) days in the case of the Commonwealth, including local housing authorities) after receipt from the Contractor, at the place designated by the Awarding Authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the Awarding Authority will make a periodic payment to the Contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the Contractor has title or to which a Subcontractor has title and has authorized the Contractor to transfer title to the Awarding Authority, upon

certification by the contractor that he is the lawful owner and that the materials are free from all encumbrances, but less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of section thirty nine F, and less (3) a retention not exceeding five per cent (5%) of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty five (65) days after (a) the Contractor fully completes the work or Substantially Completes the work so that the value of the work remaining to be done is, in the estimate of the Awarding Authority, less than one per cent (1%) of the original Contract Price, or (b) the Contractor Substantially Completes the work and the Awarding Authority takes possession for occupancy, whichever occurs first, the Awarding Authority shall pay the Contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the Contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of section thirty nine F, or based on the record of payments by the Contractor to the Subcontractors under this contract if such record of payment indicates that the Contractor has not paid Subcontractors as provided in section thirty nine F. If the Awarding Authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three (3) percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the Contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen (15) days (twenty four (24) days in the case of the Commonwealth) after receipt of such a periodic estimate from the Contractor, at the place designated by the Awarding Authority if such a place is so designated. The Contractor agrees to pay to each Subcontractor a portion of any such interest paid in accordance with the amount due each Subcontractor.

The Awarding Authority may make changes in any periodic estimate submitted by the Contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the Awarding Authority may, within seven (7) days after receipt, return to the Contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the Awarding Authority, or to its designee as set forth in writing to the Contractor, and the date of receipt by the Awarding Authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub subtrade listed in sub bid form as required by Specifications and a column listing the amount paid to each Subcontractor and Sub-Subcontractor as of the date the periodic estimate is filed. The person making payment for the Awarding Authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the Architect to the effect that the Contractor has fully or Substantially Completed the work shall, subject to the provisions of section thirty nine J, be conclusive for the purposes of this section.

Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the awarding authority, less than one per cent (1%) of the adjusted contract price, or the awarding authority has determined that the Contractor has substantially completed the work and the Awarding Authority has taken possession for occupancy, the Awarding Authority may send to the General Contractor by certified mail, return receipt requested, a complete and final list of all incomplete and unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The General Contractor shall then complete all such work items within thirty (30) days of receipt of such list or before the contract completion date, whichever is later. If the General Contractor fails to complete all incomplete and unsatisfactory work items within forty-five (45) days after receipt of such items furnished by the Awarding Authority or before the contract completion date, whichever is later, subsequent to an additional fourteen (14) days' written notice to the General Contractor by certified mail, return receipt requested, the Awarding Authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same to the General Contractor and such termination shall be without prejudice to any other rights or remedies the Awarding Authority may have under the contract. The Awarding Authority shall note any such termination in the evaluation form to be filed by the Awarding Authority pursuant to the provisions of section forty-four D of chapter one hundred and forty-nine.

1.1.4 CHAP. 30 MGL SECTION 39M

Contracts for construction and materials; manner of awarding

(a) Every contract for the construction, reconstruction, alteration, remodeling or repair of any public work, or for the purchase of any material, as hereinafter defined, by the commonwealth, or political subdivision thereof, or by any county, city, town, district, or housing authority, and estimated by the Awarding Authority to cost more than ten thousand dollars (\$10,000.00), and every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency, as defined by subsection one of section forty-four A of chapter one hundred and forty-nine, estimated to cost more than twenty-five thousand dollars (\$25,000.00) but not more than one hundred thousand dollars (\$100,000.00), shall be awarded to the lowest responsible and eligible bidder on the basis of competitive bids publicly opened and read by such Awarding Authority forthwith upon expiration of the time for the filing thereof; provided, however, that such Awarding Authority may reject any and all bids, if it is in the public interest to do so. Every bid for such contract shall be accompanied by a bid deposit in the form of a bid bond, or cash, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the Awarding Authority. The amount of such bid deposit shall be five per cent (5%) of the value of the bid. Any person submitting a bid under this section shall, on such bid, certify as follows:

The undersigned certifies under penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

(Name of person signing bid)

(Company)

This paragraph shall not apply to the award of any contract subject to the provisions of sections forty-four A to forty-four J, inclusive, of chapter one hundred and forty-nine and every such contract shall continue to be awarded as provided therein. In cases of extreme emergency caused by enemy attack, sabotage or other such hostile actions or resulting from an imminent security threat explosion, fire, flood, earthquake, hurricane, tornado or other such catastrophe, an Awarding Authority may, without competitive bids and notwithstanding any general or specific law, award contracts otherwise subject to this paragraph to perform work and to purchase or rent materials and equipment, all as may be necessary for temporary repair and restoration to service of any and all public work in order to preserve the health and safety of persons or property; provided, that this exception shall not apply to any permanent reconstruction, alteration, remodeling or repair of any public work.

(b) Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the Awarding Authority or promptly given in writing by the Awarding Authority to anyone making a written request therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if, in the opinion of the Awarding Authority: (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 public 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 said specifications. For each item of material the specifications shall provide for either a minimum of three (3) named brands of material or a description of material which can be met by a minimum of three (3) manufacturers or producers, and for the equal of any one of said name or described materials.

(c) The term "lowest responsible and eligible bidder" shall mean the bidder: (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who 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) who shall certify that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; (4) who, where the provisions of section eight B of

chapter twenty-nine apply, shall have been determined to be qualified thereunder; and (5) who obtains within ten (10) days of the notification of contract award the security by bond required under section twenty-nine of chapter one hundred and forty-nine; provided that for the purposes of this section the term "security by bond" shall mean the bond of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the Awarding Authority; provided further, that if there is more than 1 surety company, the surety companies shall be jointly and severally liable.

(d) The provisions of this section shall not apply (1) to the extent that they prevent the approval of such specifications by any contributing federal agency, (2) to materials purchased under specifications of the state department of highways at prices established by the said department pursuant to advertisement and bidding in connection with work to be performed under the provisions of chapter eighty-one or chapter ninety, (3) to any transaction between the commonwealth and any of its political subdivisions or between the commonwealth and any public service corporation, and (4) to any contract of not more than twenty-five thousand dollars (\$25,000.00) awarded by a governmental body, as defined by section two of chapter thirty B, in accordance with the provisions of section five of said chapter thirty B; and (5) to any contract solely for the purchase of material awarded by a governmental body, as defined by section two of chapter thirty B, in accordance with section five of said chapter thirty B.

(e) The word "material" as used in this section shall mean and include any article, assembly, system, or any component part thereof.

1.1.5 CHAP. 30 MGL SECTION 39N

Construction contracts; equitable adjustment in contract price for differing subsurface or latent physical conditions

Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an Awarding Authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

If, during the progress of the work, the Contractor or the Awarding Authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the Contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a Contractor; or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

1.1.6

CHAP. 30 MGL SECTION 39O

Contracts for construction and materials; suspension, delay or interruption due to order of awarding authority; adjustment in contract price; written claim

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

(a) The Awarding Authority may order the General Contractor in writing to suspend, delay or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the Awarding Authority; provided however, that if there is a suspension, delay or interruption for fifteen (15) days or more or due to a failure of the Awarding Authority to act within the time specified in this contract, the Awarding Authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the General Contractor on such increase; and provided further, that the Awarding Authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The General Contractor must submit the amount of a claim under provision (a) to the Awarding Authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the Awarding Authority shall not approve any costs in the claim incurred more than twenty (20) days before the General Contractor notified the Awarding Authority in writing of the act or failure to act involved in the claim.

1.1.7

CHAP. 30 MGL SECTION 39P

Contracts for construction and materials; awarding authority's decisions on interpretation of specifications, etc.; time limit; notice

Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the Awarding Authority, or any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty (30) days after the written submission for decision; but if such decision requires extended investigation and study, the Awarding Authority, the official, architect or engineer shall, within thirty (30) days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty (30) day period and the date by which the decision will be made.

Definitions; contract provisions; management and financial statements; enforcement

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

(1) “Contractor” means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive of chapter one hundred and forty-nine which is for an amount or estimated amount greater than one hundred thousand dollars (\$100,000.00).

(2) “Contract” means any contract awarded or executed pursuant to sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A through forty-four H, inclusive of chapter one hundred and forty-nine, which is for amount or estimated amount greater than one hundred thousand dollars (\$100,000.00).

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

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

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

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

disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the Contractor.

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

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

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

(1) The Contractor shall make, and keep for at least six (6) years after final payment, books, records, and accounts, which in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor, and

(2) until the expiration of six (6) years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the Contractor or of his Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his Subcontractors, and

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

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

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

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

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

- (2) transactions are recorded as necessary
 - i. to permit preparation of financial statements in conformity with generally accepted accounting principles, and
 - ii. to maintain accountability for assets;
- (3) access to assets is permitted only in accordance with management's general or specific authorization; and
- (4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

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

- (1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and
- (2) whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

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

(e) The Office of Inspector General, the Commissioner of Capital Asset Management and Maintenance and any other Awarding Authority shall enforce the provisions of this section. The Commissioner of Capital Asset Management and Maintenance may after providing an opportunity for the Inspector General and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all Awarding Authorities. A Contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

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

Lodging, board and trade of public employees; statute part of employment contract

Every employee in public works shall lodge, board and trade where and with whom he elects, and no person or his agents or employees under contract with the Commonwealth, a County, City or Town, or with a Department, Board, Commission or Officer acting therefor, for the doing of public work shall directly or indirectly require, as a condition of employment therein, that the employee shall lodge, board or trade at a particular place or with a particular person. This section shall be made a part of the Contract for such employment.

Public works; preference to veterans and citizens; wages

In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town, authority or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the commonwealth who have been residents of the commonwealth for at least six (6) months at the commencement of their employment who are veterans as defined in clause Forty-third of section 7 of chapter 4 and who are qualified to perform the work to which the employment relates and, within such preference, preference shall be given to service-disabled veterans; and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six (6) months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town or district in the construction of public works, or persons contracting or subcontracting for such works, shall give preference to veterans and citizens who are residents of such county, town, authority or district and, within such preference, preference shall be given to service-disabled veterans. The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the commissioner as hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of the town or towns where said works are being constructed; provided, further, that where the same public work is to be constructed in two (2) or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service of the town paying the highest rate; provided, further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings in the private construction industry between organized labor and employers, the rate or rates to be paid on said works shall not be less than the rates so established; provided further, that in towns where no such rate or rates have been so established, the wages paid to mechanics, teamsters, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the commonwealth or of a county, town, authority or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriations of more than one thousand dollars (\$1,000.00) are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.

Permanent and temporary laborers employed by the state department of highways and by the metropolitan district commission shall receive such salary or compensation as may be fixed under and in accordance with sections forty-five to fifty inclusive of chapter thirty.

1.1.11 CHAP. 149 MGL SECTION 34

Public contracts; stipulation as to hours and days of work; void contracts

Every contract, except for the purchase of material or supplies, involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the Commonwealth or any county or any town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the Commonwealth, in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight (8) hours in any one day or more than forty eight (48) hours in any one (1) week, or more than six (6) days in any one (1) week, except in cases of emergency, or, in case any town subject to section thirty one is a party to such a contract, more than eight (8) hours in any one day, except as aforesaid; provided, that in contracts entered into by the Department of Highways for the construction or reconstruction of highways there may be inserted in said stipulation a provision that said Department, or any Contractor or Subcontractor for said Department, may employ laborers, workmen, mechanics, foremen and inspectors for more than eight (8) hours in any one (1) day in such construction or reconstruction when, in the opinion of the Commissioner, public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void.

1.1.12 CHAP. 149 MGL SECTION 34A

Contracts for public works; workers' compensation insurance; breach of contract; enforcement and violation of statute

Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or other public works for the Commonwealth or any political subdivision thereof shall contain stipulations requiring that the Contractor shall, before commencing performance of such 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 that the Contractor shall continue such insurance in full force and effect during the term of the contract. No officer or agent contracting in behalf of the Commonwealth or any political subdivision thereof shall award such a contract until he has been furnished with sufficient proof of compliance with the aforesaid stipulations. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured, shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the officer or agent who awarded the contract at least fifteen (15) days prior to the intended effective date thereof, which date shall be expressed in said notice. Notice of cancellation sent by the party proposing cancellation by registered mail, postage prepaid, with a return receipt of the addressee requested, shall be a sufficient notice. An affidavit of any officer, agent or employee of the insurer or of the insured, as the case may be, duly authorized for the purpose, that he has so sent such notice addressed as aforesaid shall be prima facie evidence of the sending thereof as aforesaid. This section shall apply to the legal representative, trustee in bankruptcy, receiver, assignee, trustee and the successor in interest of any such Contractor. The superior court shall have jurisdiction in equity to enforce this section.

Whoever violates any provision of this section shall be punished by a fine of not more than one hundred dollars (\$100.00) or by imprisonment for six (6) months, or both; and, in addition, any Contractor who violates any provision of this section shall be prohibited from contracting, directly or indirectly, with the Commonwealth or any political subdivision thereof, for the construction, alteration, demolition, maintenance or repair of, or addition to, any public works or public building for a period of two years from the date of conviction of said violation.

1.1.13 CHAP. 149 MGL SECTION 34B

Contracts for public works; wages for reserve police officer

Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public works for the Commonwealth or any political subdivision thereof shall contain stipulations requiring that the Contractor shall pay to any reserve police officer employed by him in any City or Town the prevailing rate of wage paid to regular police officers in such City or Town.

1.1.14 CHAP.149 MGL SECTION 44A

Section forty-four A. (1) The words defined in this section shall have the meaning set forth below whenever they appear in sections forty-four A through forty-four H, inclusive, of this chapter unless indicated otherwise or unless the context in which they are used clearly requires a different meaning.

“Commissioner”, means the commissioner of the division of capital asset management and maintenance or his designee.

“Public Agency” means a department, agency, board, commission, authority, or other instrumentality of the commonwealth or political subdivision of the commonwealth, or two or more subdivisions thereof but not including the Massachusetts Bay Transportation Authority;

“Responsible” means demonstrably possessing the skill, ability and integrity necessary to faithfully perform the work called for by a particular contract, based upon a determination of competent workmanship and financial soundness in accordance with the provisions of section forty-four D of this chapter;

“Eligible” means able to meet all requirements for bidders or offerors set forth in sections forty-four A through forty-four H of this chapter and not debarred from bidding under section forty-four C of this chapter or any other applicable law, and who 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 on the work.

“Modular Building”, a pre-designed building or units of a pre-designed building assembled and equipped with internal plumbing, electrical or similar systems prior to movement to the site where such units are attached to each other and such building is affixed to a foundation and connected to external utilities; or any portable structure with walls, a floor, and a roof, designed or used for the shelter of persons or property, transportable in one or more sections and affixed to a foundation and connected to external utilities.

“Procurement”, buying, purchasing, or otherwise acquiring and installing a modular building, and all functions that pertain to the acquisition and installation of a modular building, including description of requirements, selection and solicitation of sources, preparation and award of contract, and all phases of contract administration.

“Proprietary environmental technology systems”, systems, in the Town of , including solid waste related equipment, supporting structures, and buildings, designed, manufactured, and produced under exclusive individual right to sell such product, pertaining to solid waste related environmental protection or remediation. Such systems shall include, but not be limited to, sequential, turnkey, construction management, design/build procurement, and the phasing of such procurement, including approval of design and construction stages as separate or combined phases.

(2)(A) Every contract or procurement for the construction, reconstruction, installation, demolition, maintenance or repair of a building by a public agency estimated to cost less than ten thousand dollars (\$10,000.00), shall be obtained through the exercise of sound business practices; provided, however, that the public agency shall make and keep a record of each such procurement; and provided further, that the record shall, at a minimum, include the name and address of the person from whom the services were procured.

(B) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building estimated to cost not less than ten thousand dollars (\$10,000.00) but not more than twenty-five thousand dollars (\$25,000.00) shall be awarded to the responsible person offering to perform the contract at the lowest price. The public agency shall make public notification of the contract and shall seek written responses from persons who customarily perform such work. The public notification shall include a scope-of-work statement that defines the work to be performed and provides potential responders with sufficient information regarding the objectives and requirements of the public agency and the time period within which the work shall be completed. For the purposes of this paragraph, “public notification” shall include, but need not be limited to, posting at least two (2) weeks before the time specified in the notification for the receipt of responses, the contract and scope-of- work statement on the website of the public agency, on the COMPASS system or in the central register published pursuant to section 20A of chapter 9 and in a conspicuous place in or near the primary office of the public agency.

(C) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency estimated to cost not less than twenty-five thousand dollars (\$25,000.00) but not more than one hundred thousand dollars (\$100,000.00), except for a pumping station to be constructed as an integral part of a sewer construction or water construction project bid under the provisions of section thirty-nine M of chapter thirty, shall be awarded to the lowest responsible and eligible bidder on the basis of competitive bids publicly opened and read in accordance with the procedure set forth in said section thirty-nine M of said chapter thirty. The term “pumping station” as used in this section shall mean a building or other structure which houses solely pumps and appurtenant electrical and plumbing fixtures.

(D) Every contract for the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency estimated to cost more than one hundred thousand dollars (\$100,000.00), except for a pumping station to be constructed as an integral part of a sewer construction or water construction project bid under the provisions of section thirty-nine M of chapter thirty shall be awarded to the lowest responsible and eligible general bidder on the basis of competitive bids in accordance with the procedure set forth in section forty-four A to forty-four H, inclusive.

(E) When the general court has approved the use of an alternative mode of procurement of construction for a project pursuant to section seven E of chapter twenty-nine, the awarding authority responsible for procuring construction services for the project shall follow the policies and procedures of this section and of section forty-four B to 44H, inclusive, to the extent compatible with the mode of construction procurement selected.

(F) Notwithstanding paragraph (E), a public agency may undertake the procurement of modular buildings, in accordance with section forty-four E. A public agency may procure site work for modular buildings, including but not limited to, construction of foundations, installations, and attachment to external utilities, or any portion of site work, either in combination with the procurement of modular buildings pursuant to section 44E or on the basis of competitive bids pursuant to the paragraph (E). Notwithstanding the paragraph (E), a public agency may procure energy management services in accordance with section eleven C of chapter twenty-five A and regulations promulgated thereunder.

(3) The award of every such contract in connection with which approval by an officer, board or agency of the federal government is required shall be made within thirty days, Saturdays, Sundays and legal holidays excluded, after such approval; and the award of every contract subject to this section in connection with which approval by an officer, board or agency of the federal government is not required shall be made within thirty days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids therefor. If the bidder selected as the general contractor fails to perform his agreement to execute a contract in accordance with the terms of his bid and furnish a performance bond and also a labor and materials or payment bond as stated in his bid in accordance with section forty-four E, an award shall be made to the next lowest responsible and eligible bidder, subject to the provisions of sections forty-four A to forty-four H, inclusive, of this chapter. The thirty-day time limit shall not be applicable to a second or subsequent award made after expiration of the time limit with the consent of said next lowest responsible and eligible bidder, and made because the original award made within the time limit was invalid, or because the bidder failed to execute the contract or to provide a performance bond and labor and materials or payment bond.

(4) In cases of extreme emergency, the awarding authority may, with the prior approval of the commissioner, award a contract for that portion of the work necessary to preserve the health or safety of persons or property or to alleviate an imminent security threat on the basis of such competitive bids or proposals as it can obtain in time to care for the extreme emergency and without public opening of the bids or proposals. Where the nature of the emergency prevents the awarding authority from obtaining the prior approval of the commissioner, the awarding authority may contract for the necessary work without said prior approval; provided, however, that the approval of the commissioner shall still be

sought at the earliest possible time; and provided, further, that if the commissioner at that time fails to approve the emergency determination the awarding authority shall promptly cease all work for which the emergency determination was denied. In such cases, the contractor shall be entitled to payment for the fair value of the labor and materials furnished prior to cessation of the work.

The commissioner shall maintain a record of all contracts awarded pursuant to this subsection, containing a description of the circumstances and the reasons for the commissioner's determination.

(5) (a) Notwithstanding the provisions of this section or any other general or special law to the contrary, a municipality may enter into a contract for proprietary environmental technology systems as defined in subsection (1) of this section without said contract being subject to the competitive bid process as set forth in sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven; this section and sections forty-four B to forty-four H, inclusive, of this chapter, and section thirty-nine M of chapter thirty; provided that the awarding authority meets the conditions set forth and receives the approvals required in paragraph (b) of this subsection.

(b) Prior to the issuance of any request for proposal with respect to the awarding of any contract pursuant to the provisions of paragraph (a) of this subsection, the awarding authority shall meet or obtain each of the following conditions or required approvals: (1) the municipality shall appoint qualified persons to conduct a thorough review of all available environmental technology, including both proprietary and non-proprietary environmental technology, and if the conclusion of this review is that a contract for proprietary environmental technology systems is in the public interest, such conclusion shall be supported by sound documented reasons in writing available for public inspection; (2) the city council, the board of selectmen, or the town meeting shall take a majority vote finding that it is in the public interest to enter into a contract for proprietary environmental technology systems, as defined in subsection (1) of this section, providing such vote is supported by the conclusion of the review conducted pursuant to condition (1); (3) both the attorney general and the commissioner of the department of environmental protection shall grant written approval; (4) said contract shall be subject to any limitation in the waiver of sections thirty-eight A1/2 to thirty-eight O, inclusive, of chapter seven, sections forty-four A to forty-four H of chapter one hundred and forty-nine, and section thirty-nine M of chapter thirty imposed by either the attorney general or the commissioner of the department of environmental protection as a condition for a grant of approval by said officers; and (5) every proprietary environmental technology systems contract shall be as compatible with sections thirty-eight A to thirty-eight O, inclusive, of chapter seven, sections forty-four A to forty-four H of chapter one hundred and forty-nine, and section thirty-nine M of chapter thirty as is feasible for the procurement of the proprietary environmental technology systems chosen.

(G) Every contract by a state agency or state assisted contract for design, construction, reconstruction, installation, demolition, maintenance or repair shall set forth the participation goals of minority and women workers to be employed on each such contract and the processes and procedures to ensure compliance with those workforce participation goals, including reporting and enforcement provisions.

1.1.15 CHAP.149 MGL SECTION 44G(D)

(D) Every contract subject to section forty-four A shall include specifications for the installation of weather protection and shall require that the contractor shall install the same and that he shall furnish adequate heat in the area so protected during the months of November through March. Standards for such specifications shall be established by the commissioner or his designee.

INSURANCE CERTIFICATION FORM

This form is to be completed by an authorized representative of each insurance company providing coverages, to verify that contract insurance requirements are provided.

CONTRACT PARAGRAPH NUMBER	DESCRIPTION OF COVERAGE	COMPANY LETTER	POLICY NUMBER	LIMITS	LIMIT EXTENDED BY UMBRELLA
---------------------------------	----------------------------	-------------------	------------------	--------	----------------------------------

WORKMAN'S COMPENSATION (Contractor as Insured)

SC 5.4	Workman's Compensation	_____	# _____	\$ _____	_____
SC 5.4	Employer's Liability	_____	# _____		
	a. Each Accident			\$ _____	_____
	b. Disease Policy Limit			\$ _____	_____
	c. Disease Each Employee			\$ _____	_____

COMMERCIAL GENERAL LIABILITY (Contractor as Insured, Owner and Engineer as Additional Insured)

SC 5.4	General Liability	_____	# _____		
	a. General Aggregate			\$ _____	_____
	b. Each Occurrence			\$ _____	_____
	1. Premises/Operations			\$ _____	_____
	2. Products/Completed Operation			\$ _____	_____
	3. Contractual			\$ _____	_____
	4. Independent Contractors			\$ _____	_____
	5. Broad Form Property Damage			\$ _____	_____
	6. Personal Injury			\$ _____	_____
	7. Medical Expense			\$ _____	_____
	8. XCU			\$ _____	_____

AUTOMOTIVE LIABILITY (Contractor as Named Insured)

a.	Combined Single Limit	_____	# _____	\$ _____	_____
	1. Scheduled Autos			\$ _____	_____
	2. Hired Autos			\$ _____	_____
	3. Non Owned Autos			\$ _____	_____

INSURANCE CERTIFICATION FORM (Continued)

CONTRACT PARAGRAPH NUMBER	DESCRIPTION OF COVERAGE	COMPANY LETTER	POLICY NUMBER	LIMITS	LIMIT EXTENDED BY UMBRELLA
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EXCESS UMBRELLA LIABILITY

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____

INSTALLATION FLOATER

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____
c.	Installation Floater	_____	# _____	\$ _____	_____

BUILDER'S ALL RISK

(Contractor as Named Insured, Owner and Engineer as Additional Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____
c.	All Risk	_____	# _____	\$ _____	_____

OWNER'S PROTECTIVE LIABILITY (Owner and Engineer as Named Insured)

a.	General Aggregate	_____	# _____	\$ _____	_____
b.	Each Occurrence	_____	# _____	\$ _____	_____

I hereby certify that the information contain herein is accurate to the best of knowledge.

SIGNATURE

PRINTED NAME

DATE

PRINTED TITLE

NATICK, MASSACHUSETTS
BOARD OF SELECTMEN

CONTRACT NO. W-143

SPRINGVALE #4 WATER PUMP STATION

CHANGE ORDER FORM

Original Contract Price \$ _____
Previous Change Orders # \$ _____
Present Contract Price \$ _____
This Change Order # ___ Increase/Decrease \$ _____

Total Adjusted Contract Price \$ _____

This Change Order changes the time of completion by ____ calendar Days.

The extended completion date is _____

This Change Order checked by _____
Engineer Date

This Change Order requested by _____

This Change Order prepared by _____
Engineer

The undersigned agree to the terms of the Change Order.

Contractor Date

Owner Date

Town Accountant Date

Certification of Appropriation under M.G.L. c.44, §31C: Adequate funding in the amount sufficient to cover the total cost of this Change Order is available.

Certification Officer Date

Change Order Form (continued)

Public Entity _____

Project Number _____

Contract Number: _____

Change Order Number: _____

Contract Title: _____

Owner's Name: _____

Owner's Address: _____

Contractor's Name: _____

Contractor's Address: _____

Description of Change

Reason for Change

Example Calculation Sheet

(1) Labor

Foreman 10 hrs @ \$45.00/hr.	\$ 450.00	
Engineer 10 hrs @ 35.00/hr.	350.00	
Operator 10 hrs @ 40.00/hr.	400.00	
Laborers 24 hrs @ 28.00/hr.	672.00	
		\$ 1,872.00

(2) Direct Labor Cost (use the agreed upon
Direct Labor Cost)

*(30) % of \$1,872

*(used for example purposes only) 561.60

(3) Materials & Freight

150 l.f. of 12" pipe @ \$15.00/l.f.	\$2,250.00	
15 v.f. precast SMH	2,500.00	
Freight (slip # Enclosed)	110.00	
		4,860.00

(4) Equipment

1 Backhoe 10 hrs @ \$140.00/hr.	\$1,400.00	
1 Truck crane 10 hrs @ \$180.00/hr.	1,800.00	
		<u>-3,200.00</u>

Total items 1 through 4) \$ 10,493.60

(5) 15% markup for Overhead, Profit

15% of \$10,493.60 \$ 1,574.04

(6) 5% markup for General Contractor
(if Subcontractor is involved)

5% of \$10,493.60 524.68

(7) Credits deductible - 323.00

Total Cost \$ 12,269.32

Reminder: Provide support documentation as necessary i.e. vouchers, correspondence, calculations, Blue Book equipment rental rate printouts, photographs, reports, etc.

INDEX

DIVISION 1 - GENERAL REQUIREMENTS

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SECTION 01010

SUMMARY OF THE WORK

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work included:

1. The Work of this Contract is located in the Town of Natick, MA, at the Springvale Water Treatment Plant, 1080 Worcester Road.
2. In order for Natick to meet water demands, the existing pump station variable speed drive will not be taken offline and relocated to the new station until the new station is ready for equipment startup. Contractor must limit existing pump station no. 4 down time.
3. The work of the General Contractor shall include but not necessarily be limited to providing all labor, materials, equipment and incidentals required to provide a complete Springvale No. 4 Pump Station unless, otherwise noted.
 - a. New vertical turbine pump, motor, shafting, column piping.
 - b. New window louver and new door operator.
 - c. Surface preparation and painting of new station.
 - d. New underground piping and station piping.
 - e. New level transducer.
 - f. New magnetic flow meter and remote indicator.
 - g. New concrete roof with rubber roof system and roof trim.
 - h. Decommission existing Springvale No. 4 well.
 - i. New sump pump and discharge pipe.
 - j. Demolition work in existing pump station No. 4.
 - k. Installation of garage door in existing pump station No. 4.
 - l. Door frames, waterproofing, insulation board, lintels and precast sills for cavity wall construction
4. The work of the Electrical Subcontractor shall include but not necessarily be limited to providing all labor, materials, equipment and incidentals required to provide the following at the new Springvale No. 4 Pump Station unless otherwise noted.
 - a. New electric service entrance equipment, including 3- phase and single phase circuits.
 - b. Remove and relocate variable frequency drive unit.
 - c. New lighting system.
 - d. New switches and receptacle.
 - e. New electric feed to vertical turbine motor.
 - f. Demolition work as identified in the Specification and on the Drawings.
 - g. Fan control panel.
 - h. New electric heater.
 - i. New conduit and conductors.
 - j. Building security and fire alarm system for new Springvale No. 4.

- k. Relocation of Scada panel and re-routing of fiber optic communication panel.
- 5. The work of the masonry sub-contractor shall include but not necessarily be limited to providing all labor, materials, equipment and incidentals required to provide the following at the new Springvale No. 4 Pump Station.
 - a. Cavity wall construction including concrete masonry units and brick.
 - b. Installation of materials furnished under other sections including but not limited to the following:
 - 1. Pre-cast sills
 - 2. Steel lintels
 - 3. Reinforcement
 - c. All wire reinforcement for CMU walls and brick ties.
- 6. The work of the General Contractor shall include but not necessarily be limited to providing all labor, materials, equipment and incidentals required to provide a complete gravity sewer and backwash tank piping.
 - a. Gravity sewer pipe and manholes.
 - b. Connection of gravity sewer to existing manholes.
 - c. Backwash tank water drain piping including precast headwall and manhole.
 - d. Backwash tank valve vault, piping and flow meters.
 - e. Backwash tank fill piping.
- 7. The work of the Electrical Subcontractor shall include but not necessarily be limited to providing all labor, materials, equipment and incidentals required to provide the following at the new Backwash valves and control panels unless otherwise noted.
 - a. Provide conduit and conductors for motor operated valves on the backwash tank. Valves provided by others.
 - b. Provide backwash tank control panels and panel modifications, associated conduit and conductors.
 - c. Provide conduit and conductors for valve pit flow meters.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Proposed Contract Price for the General contract work in the Bid Form under item No. 1 includes the furnishing of all labor, materials, equipment and incidentals that are required by the Contractor to construct Springvale No. 4 Water Station as specified in the Contract Specifications and/or shown on the Contract Drawings, with the exception of the work identified in Paragraph B and C in this Section.
 - 1. All work associated with the General Contract for additional work item No. 3 shall include all equipment, labor and materials required to complete the work.
- B. All cost to complete the Masonry work required to complete the project shall be included in the filed sub-bid. This cost shall include the furnishing and installation of the cavity wall and associated materials.
- C. All costs to complete the electrical work required to complete the project shall be included in the Filed Sub-bid. This cost shall include the demolition of electrical equipment, furnishing and installing new power equipment, remove and reinstall the current variable frequency drive into the new water station building, new lighting, new receptacles, new conduits and start-up of same.

END OF SECTION

SECTION 01026

SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide a detailed breakdown of the lump sum Contract items showing values allocated to each of the various parts of the Work, as required by the Contract Documents.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Schedule of values is required under Paragraph 2.6 and 14.1 of the General Conditions.
 - 3. Schedule of values is required to be compatible with the "continuation sheet" accompanying applications for payment, as described in Section 01027.

1.2 QUALITY ASSURANCE

- A. Use required means to assure arithmetical accuracy of the sums described.
- B. When so requested by the Engineer, provide copies of the subcontracts or other data acceptable to the Engineer, substantiating the sums described.
- C. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 SUBMITTALS

- A. Prior to first application for payment, submit a proposed schedule of values to the Engineer.
 - 1. Meet with the Engineer and determine additional data, if any, required to be submitted.
 - 2. Secure the Engineer's approval of the schedule of values prior to submitting first application for payment.

END OF SECTION

SECTION 01027

APPLICATION FOR PAYMENT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Contractor shall comply with procedures described in this Section when applying for progress payment and final payment under the Contract.
- B. Related Work:
 - 1. Documents affecting Work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. The Contract Sum and the schedule for payments are described in the Form of Agreement.
 - 3. Payments upon Substantial Completion and Completion of the Work are described in the General Conditions.

1.2 QUALITY ASSURANCE

- A. Prior to start of construction, Contractor shall secure Engineer's approval of the schedule of values required to be submitted under Paragraph 2.05.3 of the General Conditions, and further described in Section 01026 of these specifications.
- B. During progress of the Work, Contractor shall modify the schedule of values as approved by Engineer to reflect changes in the Contract Sum due to Change Orders or other modifications of the Contract.
- C. Contractor shall base requests for payment on the approved schedule of values.
- D. Contractor shall conduct all Work in a first-class, workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the Work under this section.

1.3 SUBMITTALS

- A. Informal submittal: Unless otherwise directed by Engineer.
 - 1. Contractor shall make an informal submittal of request for payment by filling in, with erasable pencil, pertinent portions of AIA Document G702, "Application and Certificate for Payment," plus continuation sheet or sheets.
 - 2. Contractor shall make this preliminary submittal to Engineer at the end of each month.
 - 3. Contractor shall revise the informal submittal of request for payment as agreed, between both parties, initialing all copies.

- B. Formal submittal: Unless otherwise directed by Engineer:
1. Contractor shall make formal submittal of request for payment by filling in the agreed data, by typewriter or neat lettering in ink, on AIA Document G702, "Application and Certificate for Payment," plus continuation sheet or sheets.
 2. Contractor shall sign and notarize the Application and Certificate for payment.
 3. Contractor shall submit the original of the Application and Certificate for Payment, plus eight (8) identical copies of the continuation sheet or sheets, to Engineer.
 4. Engineer shall compare the formal submittal with the approved informal submittal and, when approved, shall sign the Application and Certificate of Payment, shall make required copies, and shall distribute:
 - a. Two (2) copies to Contractor;
 - b. Three (3) copies to Owner; and
 - c. Two (2) copies to Engineer's file.

END OF SECTION

SECTION 01036

CHANGES IN CONTRACT WORK, COST OR TIME

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Contractor shall make such changes in the Work, in the Contract Sum, in the Contract Time of Completion, or any combination thereof, as are described in a Written Amendment, Change Order or Work Change Directive, signed by Owner and issued after execution of the Contract, in accordance with the provisions of this Section, Articles 10, 11 and 12 of the General Conditions, and amendments contained in the Supplemental Conditions.
- B. Owner reserves the right to at any time order additions, deletions or revisions in the Work, which shall be authorized by Written Amendment, a Change Order, a Work Change Directive or a Field Order, and Contractor shall promptly proceed with the Work involved.
- C. If Owner or Contractor are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment in the Contract Times that should be allowed as the result of a Work Change Directive, a claim may be made in accordance with the provisions of Article 10 of the General Conditions.
- D. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which is to be performed under the applicable conditions of the Contract Documents, unless otherwise specifically provided.
- E. See a full definition of the above in the General Conditions, Article 1, Definitions.

1.2 QUALITY ASSURANCE

- A. Within Contractor's quality assurance program, Contractor shall include such measures as are needed to assure familiarity of Contractor's staff and employees with these procedures for processing Change Order data.
- B. Contractor shall conduct all Work in a first-class, workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the Work under this section.

1.3 CONTRACT PRICE

- A. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change in the Contract Price.
- B. The Contract Price may only be changed by a Change Order or a Written Amendment.

1.4 PROCESS FOR INITIATING AND FINALIZING A CHANGE IN CONTRACT PRICE

- A. Any claim for an adjustment in the Contract Price by either party to the Contract shall be based upon written notice delivered by the party making the claim to the other party and Engineer promptly after the start of the occurrence or event giving rise to the claim, and stating the general nature of the claim.
- B. Notice shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event.
- C. Documentation of the costs for the Work shall be prepared and submitted in accordance with the provisions of Article 11 of the General Conditions and as amended in the Supplementary Conditions of this Contract.
- D. Once the extent of changed Work and compensation amount is finalized in accordance with the provisions of Article 11 of the General Conditions as amended in the Supplementary Conditions, a Change Order Form as included in Section 00810 with the documentation attached shall be prepared by Engineer and submitted to both parties for review and signing.
- E. Contractor's disagreement with the Change Order shall in no way relieve him/her from the responsibility to immediately proceed with the change as indicated in the Change Order, and to seek settlement of the dispute under the pertinent provisions of this Contract.
- F. Any delay in the completion of the Work associated with a disagreement in the amount of the Change Order shall not constitute a viable reason for granting an extension of time.
- G. No claim for an adjustment in the Contract Price shall be valid unless it is submitted in accordance with the provisions above and those of Article 11 of the General Conditions as amended in the Supplementary Conditions of this Contract.

1.5 PROCESS FOR INITIATING AND FINALIZING A CHANGE IN CONTRACT TIME

- A. Any claim for an adjustment in the Contract Time shall be made by a Change Order or Written Amendment, shall be based upon written notice delivered by the party making the claim to the other party and Engineer promptly after the start of the occurrence or event giving rise to the claim, and stating the general nature of the claim.
- B. Notice shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event.
- C. Once the extent of changed Contract Time, if any, is prepared in accordance with the provisions of Article 12 of the General Conditions, a Change Order shall be prepared for review and signing by both parties.
- D. Contractor's disagreement with the refusal to grant a requested extension in the Contract Time shall in no way relieve him/her from the responsibility to proceed immediately with the Work, and to seek settlement of the dispute under the pertinent provisions of this Contract. Any delay in the completion of the Work shall not constitute a viable reason for granting an extension of time.
- E. No claim for an adjustment in the Contract Time shall be valid if it is not submitted in accordance with the provisions above, as well as those of Article 12 of the General Conditions as supplemented in the Supplementary Conditions of this Contract.

END OF SECTION

SECTION 01092

ABBREVIATIONS

PART 1 - ABBREVIATIONS AND NAMES

1.1 DESCRIPTION

- A. The following abbreviations may be in the Contract Documents and represent the organizations named. The names are believed to be correct as of the date of the Contract Documents.

AA	- Aluminum Association
AAN	- American Association of Nurserymen
AASHTO	- American Association of State Highway and Transportation Officials
ACI	- American Concrete Institute
AGA	- American Gas Association
AHDGA	- American Hot Dip Galvanizers Association
AISC	- American Institute of Steel Construction
AISI	- American Iron and Steel Institute
ANSI	- American National Standards Institute
APA	- American Plywood Association
API	- American Petroleum Institute
ASCE	- American Society of Civil Engineers
ASHRAE	- American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME	- American Society of Mechanical Engineers
ASTM	- American Society of Testing and Materials
AWPA	- American Wood Preservers Association
AWS	- American Welding Society
AWWA	- American Water Works Association
CRSI	- Concrete Reinforcing Steel Institute
DEP	- Massachusetts Department of Environmental Protection
DIPRA	- Ductile Iron Pipe Research Association
EPA	- Federal Environmental Protection Agency
FM	- Factory Mutual System
Fed. Spec.	- Federal Specification
HI	- Hydraulic Institute
IEEE	- Institute of Electrical and Electronics Engineers
MIA	- Masonry Institute of America
MMR	- Massachusetts Military Reservation
MSS	- Manufacturers Standardization Society of the Valve and Fitting Industry
NAAMM	- National Association of Architectural Metal Manufacturers
NAPF	- National Association of Pipe Fabricators

NEC	- National Electrical Code
NEMA	- National Electrical Manufacturers Association
NFPA	- National Fire Protection Association
NSF	- National Sanitation Foundation
OSHA	- Occupational Safety and Health Administration
PCA	- Portland Cement Association
PCI	- Prestressed Concrete Institute
PI	- Plastic Pipe Institute
PS	- Product Standard of the National Bureau of Standards
R&RC	- Massachusetts National Guard Environmental and Readiness Center
SMACNA	- Sheet Metal and Air Conditioning Contractors National Association
SPI	- Society of the Plastics Industry
SSPC	- Steel Structures Painting Council
TCI	- Tile Council of America
TPI	- Truss Plate Institute
UL	- Underwriters Laboratories

- B. Where reference is made to a standard issued by one of the above-mentioned organizations it is understood that the revisions thereof in effect at the time of bidding shall apply.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, the Engineer will conduct project meetings throughout the construction period.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. The Contractor's relations with his subcontractors and materials suppliers, and discussions relative thereto, are the Contractor's responsibility and normally are not part of project meetings content.

1.2 QUALITY ASSURANCE

- A. For those persons designated by Contractor to attend and participate in project meetings, Contractor shall provide required authority to commit Contractor to solutions agreed upon in the project meetings.
- B. Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the Work under this section.

1.3 SUBMITTALS

- A. Agenda items:
 - 1. Engineer shall prepare a general agenda for the meetings and shall submit the same to Contractor prior to or at the meeting.
 - 2. To the maximum extent practicable, Contractor shall advise Engineer at least twenty-four (24) hours in advance of project meetings regarding items to be added to the agenda.
- B. Minutes:
 - 1. Engineer will compile minutes of each project meeting, and will furnish three copies to Contractor and required copies to Owner.
 - 2. Recipients of copies may make and distribute such other copies as they wish.

PART 2 - PRODUCTS - No products are required in this Section.

PART 3 - EXECUTION

3.1 MEETING SCHEDULE

- A. Except as noted below for Pre-construction Meeting, project meetings will be held bi-weekly.
- B. Coordinate as necessary to establish mutually acceptable schedule for meetings.

3.2 MEETING LOCATION

- A. Engineer shall establish meeting location. To the maximum extent practicable, meetings shall be held at job site.

3.3 PRE-CONSTRUCTION MEETING

- A. Pre-construction Meeting shall be scheduled to be held within fifteen (15) working days after the Owner has issued the Notice to Proceed.
 - 1. Provide attendance by authorized representatives of Contractor and major subcontractors.
 - 2. Engineer shall advise other interested parties, including Owner, and request their attendance.
- B. Minimum agenda: Data will be distributed and discussed on at least the following items:
 - 1. Organizational arrangement of Contractor's forces and personnel, and those of subcontractors, materials suppliers, and Engineer.
 - 2. Channels and procedures for communications.
 - 3. Construction schedule, including sequence of critical work.
 - 4. Contract Documents, including distribution of required copies of original Documents and revisions.
 - 5. Processing of Shop Drawings and other data submitted to the Engineer for review.
 - 6. Processing of Bulletins, field decisions, and Change Orders.
 - 7. Rules and regulations governing performance of the Work; and
 - 8. Procedures for security, quality control, housekeeping, and related matters.

3.4 PROJECT MEETINGS

- A. Attendance:
 - 1. To the maximum extent practicable, Contractor shall assign the same person or persons to represent Contractor at project meetings throughout progress of the Work.
 - 2. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved.
- B. Minimum agenda:

1. Review, revise as necessary, and approve minutes of previous meetings.
2. Review progress of the Work since last meeting, including status of submittals for approval.
3. Identify problems which impede planned progress.
4. Develop corrective measures and procedures to regain planned schedule.
5. Complete other current business.

C. Revisions to minutes:

1. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
2. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
3. Challenge to minutes shall be settled as priority portions of "old business" at the next regularly scheduled meeting.

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULES

PART 1 - GENERAL

1.1 SUMMARY

- A. To assure adequate planning and execution of the Work to insure it is completed within the number of calendar days allowed in the Contract, and to assist the Engineer in appraising the reasonableness of the proposed schedule and in evaluating progress of the Work, prepare and maintain the schedules and reports described in this Section.
- B. Comply with General Conditions Section 2.05 regarding Preliminary Schedules, General Conditions Section 6.04 regarding Progress Schedules, General Conditions Section 12.02 regarding adherence to schedules and General Conditions Section 15.02 regarding failure to adhere to schedules.
- C. The Construction period shall be that as indicated in the Agreement Section of this Contract.
- D. In calculating any period of time referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday, or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.
- E. For purposes of this Contract, a calendar day of twenty-four hours measured from midnight to the next midnight will constitute a day.

1.2 QUALITY ASSURANCE

- A. Employ a scheduler who is thoroughly trained and experienced in compiling construction schedule data, and in preparing and issuing periodic reports as required below.
- B. Perform data preparation, analysis, charting, and updating in accordance with standards approved by the Engineer.
- C. Reliance upon the approved schedule: The construction schedule as approved by the Engineer will be an integral part of the Contract and will establish interim completion dates for the various activities under the Contract.
- D. Should any activity not be completed within 10 days after the stated scheduled date, the Engineer may request the reason for the delay in schedule from the Contractor. The Contractor shall supply the requested information and the steps which he intends to take to get back on schedule.

- E. It is expressly understood and agreed that failure by the Engineer to exercise the option either to order the Contractor to expedite an activity or to expedite the activity by other means shall not be considered to set a precedent for any other activities.
- F. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Preliminary analysis: Within ten calendar days after the Contractor has received the Owner's Notice to Proceed, submit one electronic file copy of a preliminary construction schedule prepared in accordance with Part 2 of this Section.
- C. Construction schedule: Within 30 calendar days after the Contractor has received the Owner's Notice to Proceed, submit one electronic copy and four copies of a construction schedule prepared in accordance with Part 3 of this Section.
- D. Periodic reports: On the first working day of every month following the submittal described in Paragraph 1.3 C. above, submit an electronic copy and four prints of the updated construction schedule.

PART 2 - PRODUCTS

2.1 CONSTRUCTION ANALYSIS

- A. Graphically show by bar-chart, or other means acceptable to the Engineer, the order and interdependence of all activities necessary to complete the Work, and the sequence in which each activity is to be accomplished, as planned by the Contractor and his project field superintendent in coordination with all subcontractors whose work is shown on the diagram.
- B. Include, but do not necessarily limit indicated activities to:
 - 1. Project mobilization;
 - 2. Submittal and approval of Shop Drawings and Sample;
 - 3. Procurement of equipment and critical materials;
 - 4. Fabrication of special material and equipment, and its installation and testing;
 - 5. Final cleanup;
 - 6. Final inspecting and testing; and
 - 7. All activities by the Engineer that effect progress, required dates for completion, or both, for all and each part of the Work.

PART 3 - EXECUTION

3.1 PRELIMINARY ANALYSIS

- A. Contents: Show all activities of the Contractor under this Work for the period between receipt of Notice to Proceed and submittal of construction schedule.
- B. Show the Contractor's general approach to remainder of the Work.
- C. Show cost of all activities scheduled for performance before submittal and approval of the construction schedule.

3.2 CONSTRUCTION SCHEDULE

- A. Within 30 calendar days from receipt of Notice to Proceed, complete the construction analysis in preliminary form, meet with the Engineer, review contents of the proposed construction schedule, and make all revisions agreed upon.
- B. The construction shall be updated monthly by the Contractor to represent progress of each activity.

3.3 PERIODIC REPORTS

- A. As required under Paragraph 3.2 B. above, update the approved construction schedule.
- B. Indicate "actual" progress in percent completion for each activity;
- C. Provide written narrative summary of revisions causing delay in the program, and an explanation of corrective actions taken or proposed.

3.4 REVISIONS

- A. Make only those revisions to approved construction schedule as are approved in advance by the Engineer.

END OF SECTION

SECTION 01340

SUBMITTALS AND SUBSTITUTIONS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Make submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the Contract Document requirements.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to General Conditions (Par. 6.24 thru 6.28), Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Individual requirements for submittals also may be described in pertinent Sections of these Specifications.
- C. Work not included:
 - 1. Unrequired submittals will not be reviewed by Engineer.
 - 2. Contractor may require his subcontractors to provide drawings, setting diagrams, and similar information to help coordinate the Work, but such data shall remain between Contractor and his subcontractors and shall not be reviewed by Engineer unless specifically called for within the Contract Documents.

1.2 QUALITY ASSURANCE

- A. Coordination of submittals:
 - 1. Prior to each submittal, Contractor shall carefully review and coordinate all aspects of each item being submitted.
 - 2. Contractor shall verify that each item and the submittal for its conformity in all respects with the specified requirements.
 - 3. By affixing its signature to each submittal, Contractor shall certify that this coordination has been performed.
- B. Substitutions:
 - 1. The Contract is based on the standards of quality established in the Contract Documents.
 - 2. Substitutions shall be considered only when they meet those standards of quality.
 - 3. Contractor shall not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this Work by Engineer.
- C. "Or equal":
 - 1. Where the phrase "or equal," or "or equal as approved by the Engineer", occurs in the Contract Documents see Par. 6.7.1 of the General Conditions.
 - 2. The decision of Engineer shall be final.

- D. Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

PART 2 - SUBMITTALS

2.1 SHOP DRAWINGS

- A. Scale and measurements: Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.
- B. Types of prints required:
 - 1. Submit Shop Drawings in the form of six blackline prints of each sheet.
 - 2. Blueprints will not be acceptable.
- C. Review comments of the Engineer will be shown on the blackline print when it is returned to the Contractor. The Contractor may make and distribute such copies as are required for his purposes.

2.2 MANUFACTURERS' LITERATURE

- A. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, Contractor shall clearly indicate which portion of the contents is being submitted for review.
- B. Contractor shall submit required six (6) copies which are required to be returned of which two (2) copies will be retained by the engineer.

2.3 SAMPLES

- A. Contractor shall provide sample or samples identical to the precise article proposed to be provided. Contractor shall identify as described under "Identification of submittals" below.
- B. Number of Samples required:
 - 1. Unless otherwise specified, Contractor shall submit samples in the quantity which is required to be returned, plus one which will be retained by Engineer.
 - 2. By prearrangement in specific cases, a single sample may be submitted for review and, when approved, be installed in the Work at a location agreed upon by Engineer.

2.4 COLORS AND PATTERNS

- A. Unless the precise color and pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available in the specified products, submit accurate color and pattern charts to Engineer for selection.

PART 3 - EXECUTION

3.1 IDENTIFICATION OF SUBMITTALS

- A. Contractor shall consecutively number all submittals.
 - 1. When material is submitted for any reason, Contractor shall transmit under a new letter of transmittal and with a new transmittal number.
 - 2. On resubmittals, Contractor shall cite the original submittal number and date for reference.
- B. Contractor shall accompany each submittal with a letter of transmittal showing all information required for identification and checking.
- C. On at least the first page of each submittal, and elsewhere as required for positive identification, Contractor shall show the submittal number in which the item was included.
- D. Contractor shall maintain an accurate submittal log for the duration of the Work, showing current status of all submittals at all times. Contractor shall, upon the request of Engineer, make the submittal log available to Engineer for his review upon request.

3.2 GROUPING OF SUBMITTALS

- A. Unless otherwise specified, Contractor shall make submittals in groups containing all associated items to assure that information is available for checking each item when it is received.
 - 1. Partial submittals may be rejected as not complying with the provisions of the Contract.
 - 2. The Contractor may be held liable for delays so occasioned.

3.3 TIMING OF SUBMITTALS

- A. Contractor shall make submittals far enough in advanced of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
- B. In scheduling, Contractor shall allow at least twenty (20) working days for review by Engineer following his receipt of the submittal.

3.4 ENGINEER'S REVIEW

- A. Review by Engineer does not relieve Contractor from responsibility for errors which may exist in the submitted data.
- B. REVISIONS:
 - 1. Contractor shall make revisions required by Engineer.
 - 2. If Contractor considers any required revision to be a change, he shall so notify Engineer as provided for in Paragraph 10.05 of the General Conditions.

3. Contractor shall make only those revisions directed or approved by Engineer.
4. Contractor shall revise previous submittal drawings or data and resubmit them, as specified for the initial submittal.

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Contractor shall provide temporary facilities and controls needed for the Work including, but not necessarily limited to:
 - 1. Enclosures such as tarpaulins, barricades, and canopies;
 - 2. Temporary fencing of the construction site;
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Except that equipment furnished by subcontractors shall comply with requirements of pertinent safety regulations, such equipment normally furnished by the individual trades in execution of their own portions of the Work are not part of this Section.
 - 3. Permanent installation and hookup of the various utility lines are described in other Sections.

1.2 PRODUCT HANDLING

- A. Maintain temporary facilities and controls in proper and safe condition throughout progress of the Work.

PART 2 - PRODUCTS

2.1 TEMPORARY FENCING OF CONSTRUCTION SITE

- A. Contractor shall furnish and install temporary fencing or barricades to protect the Town's employees from injury during their regular treatment plant operation duties.
- B. Temporary fencing shall be furnished and installed in accordance with the Trench Safety Regulations.
 - 1. Contractor shall obtain a Trench Safety Permit from the Owner prior to start of work.

2.2 WEATHER PROTECTION

- A. Shall mean the temporary protection of that work adversely affected by moisture, wind and cold by covering, enclosing and/or heating. This protection shall provide adequate working areas during the months of November through March and be consistent with the approved construction schedule to permit the continuous progress of all work necessary to maintain an orderly and efficient sequence of construction operations. The Contractor shall furnish and install all "weather protection" material and be responsible for all costs, including heating required to maintain a minimum temperature of 40° F at the working surface. This provision does not supersede any specific requirements for methods of construction and/or curing of materials.

Installation of weather protection and heating devices shall comply with all safety regulations including provisions for adequate ventilation and fire protection devices.

The total cost of all weather protection inclusive of all materials, labor, equipment and incidentals required shall be included in the contract price. The cost shall include all work required to furnish, maintain and remove all temporary enclosures and temporary heating systems required for weather protection.

PART 3 - EXECUTION

3.1 MAINTENANCE AND REMOVAL

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the Work.
- B. Remove such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Engineer.

END OF SECTION

SECTION 01505

MOBILIZATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Includes:
 - 1. Ordering and receipt of all materials, neat stockpiling of such materials, delivery and setup of all construction equipment, and cleanup of stockpile area upon completion of construction.
- B. Related Work
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 thru Divisions 16 of these Specifications.

1.2 QUALITY ASSURANCE

- A. Contractor shall use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 SUBMITTALS

- A. None required under this Section.

1.4 PRODUCT HANDLING

- A. Contractor shall comply with pertinent provisions of Section 01610

PART 2 - PRODUCTS -Not Used

PART 3 - EXECUTION

3.1 STORAGE AREA

- A. The Owner will make the treatment plant site available for storage of materials provided the materials do not impair the normal operation of the treatment plant.

3.2 EQUIPMENT

- A. Contractor shall transport all equipment to the site and set up operations, to a condition satisfactory to proceed with the intended construction, and upon completion, remove same.

3.3 PROJECT MAINTENANCE

- A. Contractor shall properly maintain the project and storage area during the life of the Contract. Upon completion of Work, Contractor shall dismantle storage area and shall provide general cleanup along the project site.

END OF SECTION

SECTION 01601

CONTROL OF MATERIALS

PART 1 - GENERAL

1.1 APPROVAL OF MATERIALS

- A. Unless otherwise specified, only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by Contractor shall be subject to the inspection and approval of Engineer. No material shall be delivered to the work without prior approval of Engineer.
- B. As specified in Section 01340, Contractor shall submit to Engineer, data relating to materials and equipment he proposes to furnish for the work. Such data shall be in sufficient detail to enable Engineer to identify the particular product and to form an opinion as to its conformity to the Specifications.
- C. Facilities and labor for handling and inspection of all materials and equipment shall be furnished by Contractor. If Engineer requires, either prior to beginning or during the progress of the work, Contractor shall submit additional samples or materials for such special tests as may be necessary to demonstrate that they conform to the specifications. Such samples shall be furnished, stored, packed, and shipped as directed at the Contractor's expense. Except as otherwise noted, Owner will make arrangements for and pay for the tests.
- D. Any delay of approval resulting from Contractor's failure to submit samples or data promptly shall not be used as a basis of claim against Owner or Engineer.
- E. In order to demonstrate the proficiency of workmen or to facilitate the choice among several textures, types, finishes, and surfaces, Contractor shall provide such samples of workmanship or finish as may be required.
- F. The materials and equipment used on the work shall correspond to the approved samples or other data.

1.2 HANDLING AND STORAGE OF MATERIALS

- A. All materials and equipment to be incorporated in the work shall be handled and stored by manufacturer, fabricator, supplier and Contractor before, during and after shipment in a manner to prevent warping, twisting, bending, breaking chipping, rusting, and any injury, theft or damage of any kind whatsoever to the material or equipment.

- B. Contractor shall store media shall be stored under a roof and off the ground and shall be kept completely dry at all times.
- C. All mechanical equipment subject to corrosive damage by the atmosphere if stored outdoors (even though covered by canvas) shall be stored in a building by Contractor to prevent injury. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to Engineer.
- D. All materials which, in the opinion of Engineer, have become so damaged as to be unfit for the use intended or specified shall be promptly removed from the site of the Work by Contractor, and Contractor shall receive no compensation for the damaged material or its removal.

END OF SECTION

SECTION 01610

PRODUCT HANDLING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Contractor shall protect products scheduled for use in the Work by means including, but shall not necessarily be limited to, those described in this section.
- B. Related work:
 - 1. Documents affecting Work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Additional procedures also may be prescribed in other Sections of these Specifications.
- C. Only new materials and equipment shall be incorporated into the Work.

1.2 QUALITY ASSURANCE

- A. Include within Contractor's quality assurance program such procedures as are required to assure full protection of work and materials.
- B. Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 MANUFACTURERS' RECOMMENDATIONS

- A. Except as otherwise approved by Engineer, determine and comply with manufacturers' recommendations on product handling, storage, and protection.

1.4 PACKAGING

- A. Contractor shall deliver products to the job site in their manufacturer's original container, with labels intact and legible.
 - 1. Contractor shall maintain packaged materials with seals unbroken and labels intact until time of use.
 - 2. Contractor shall promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to Owner.
- B. Engineer may reject as non-complying such material and products that do not bear identification satisfactory to Engineer as to manufacturer, grade, quality, and other pertinent information.

1.5 PROTECTION

- A. Contractor shall protect finished surfaces, including jambs and soffits of openings used as passageways, through which equipment and materials are handled.
- B. Contractor shall provide protection for finished floor surfaces in traffic areas prior to allowing equipment or materials to be moved over such surfaces.
- C. Mechanical equipment subject to damage by the atmosphere if stored outdoors, even though covered by canvass, shall be stored in a building with a controlled environment. The building may be a temporary structure on the site or a building off location.

1.6 REPAIRS AND REPLACEMENTS

- A. In event of damage, Contractor shall promptly make replacements and repairs to the approval of Engineer and at no additional cost to Owner.
- B. Additional time required to secure replacements and to make repairs will not be considered by Engineer to justify an extension in the Contract Time of Completion.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Contractor shall provide an orderly and efficient transfer of the completed Work to Owner.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. "Substantial Completion" is defined in Par. 1.38 of the General Conditions.

1.2 QUALITY ASSURANCE

- A. Prior to requesting inspection by Engineer, Contractor shall use adequate means to assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.
- B. Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 PROCEDURES

- A. Substantial Completion:
 - 1. Within a reasonable time after receipt of the request to inspect, Engineer will inspect to determine status of completion.
 - 2. Should Engineer determine that the work is not substantially complete:
 - a. Engineer promptly will so notify Contractor, in writing, giving the reasons therefore.
 - b. Remedy the deficiencies and notify Engineer when ready for reinspection.
 - c. Engineer will reinspect the Work.
 - 3. When Engineer concurs that the Work is substantially complete:
 - a. The Engineer will prepare a "Certificate of Substantial Completion", on AIA Form G704, accompanied by the Contractor's list of items to be completed, as verified by the Engineer.
 - b. Engineer will submit the Certificate to Owner and to Contractor for their written acceptance of the responsibilities assigned to them in the Certificate.

- B. Final Completion:
1. Contractor shall verify that the Work is complete.
 2. Contractor shall certify that:
 - a. Contract Documents have been reviewed
 - b. Work has been inspected for compliance with the Contract Documents;
 - c. Work has been completed in accordance with the Contract Documents;
 - d. Equipment and systems have been tested as required, and are operational;
 - e. Work is completed and ready for final inspection.
 3. Engineer shall make an inspection to verify status of completion.
 4. Should Engineer determine that the Work is incomplete or defective:
 - a. Engineer promptly will so notify Contractor, in writing, listing the incomplete or defective work.
 - b. Remedy the deficiencies promptly and notify Engineer when ready for reinspection.
 5. When Engineer determines that the Work is acceptable under the Contract Documents, he will request Contractor to make closeout submittals.
- C. Closeout submittals include, but are not necessarily limited to:
1. Operation and maintenance manuals for items so listed in pertinent other sections of these Specifications, and for other items when so directed by the Engineer;
 2. Warranties and bonds;
 3. Spare parts and materials extra stock;
 4. Evidence of compliance with requirements of governmental agencies having jurisdiction including, but not necessarily limited to:
 - a. Certificates of Inspection;
 - b. Certificates of Occupancy;
 5. Certificates of Insurance for products and completed operations;
 6. Evidence of payment and release of liens;
 7. List of subcontractors, service organizations, and principal vendors, including names, addresses, and telephone numbers where they can be reached for emergency service at all times including nights, weekends, and holidays.

1.4 INSTRUCTION

- A. Instruct Owner's personnel in proper operation and maintenance of systems, equipment, and similar items which were provided as part of the Work.

END OF SECTION

SECTION 01710

CLEANING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Throughout the construction period, Contractor shall maintain the buildings and site in a standard of cleanliness as described in this Section.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. In addition to standards described in this Section, comply with requirements for cleaning as described in pertinent other Sections of these Specifications.

1.2 QUALITY ASSURANCE

- A. Contractor shall conduct daily inspection, and more often if necessary, to verify that requirements for cleanliness are being met.
- B. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT

- A. Contractor shall provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.2 COMPATIBILITY

- A. Contractor shall use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

PART 3 - EXECUTION

3.1 PROGRESS CLEANING

A. General:

1. Contractor shall retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
2. Contractor shall not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
3. Contractor shall at least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
4. Contractor shall provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

B. Site:

1. Daily, and more often if necessary, Contractor shall inspect the site and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
2. Weekly, and more often if necessary, Contractor shall inspect all arrangements of materials stored on the site. Restack, tidy, or otherwise service arrangements to meet the requirements of subparagraph 3.1-A-1 above.
3. Contractor shall maintain the site in a neat and orderly condition at all times.

C. Structures:

1. Weekly, and more often if necessary, Contractor shall inspect the structures and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
2. Weekly, and more often if necessary, Contractor shall sweep interior spaces clean.
 - a. "Clean," for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and a hand-held broom.
3. As required preparatory to installation of succeeding materials, Contractor shall clean the structures or pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the necessary cleanliness.
4. Following the installation of finish floor materials, Contractor shall clean the finish floor daily (and more often if necessary) at all times while work is being performed in the space in which finish materials are installed.
 - a. "Clean," for the purpose of this subparagraph, shall be interpreted as meaning free from foreign material which, in the opinion of the Engineer, may be injurious to the finish floor material.

3.2 FINAL CLEANING

- A. "Clean," for the purpose of this Article, and except as may be specifically provided otherwise, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.
- B. Prior to completion of the Work, Contractor shall remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Contractor shall conduct final progress cleaning as described in Article 3.1 above.
- C. Site:
 - 1. Unless otherwise specifically directed by Engineer, Contractor shall broom clean paved areas on the site and public paved areas adjacent to the site.
 - 2. Completely remove resultant debris.
- D. Structures:
 - 1. Exterior:
 - a. Contractor shall visually inspect exterior surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter caused during construction.
 - b. Contractor shall remove all traces of splashed materials from adjacent surfaces.
 - c. If necessary to achieve a uniform degree of cleanliness, hose down the exterior of the structure.
 - d. In the event of stubborn stains not removable with water, Engineer may require light sandblasting or other cleaning at no additional cost to the Owner.
 - 2. Interior:
 - a. Contractor shall visually inspect interior surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter caused during construction.
 - b. Contractor shall remove all traces of splashed material from adjacent surfaces.
 - c. Contractor shall remove paint droppings, spots, stains, and dirt from finished surfaces.
- E. Contractor shall schedule final cleaning as approved by Engineer to enable Owner to accept a completely clean Work.

3.3 CLEANING DURING OWNER'S OCCUPANCY

- A. Should Owner occupy the Work or any portion thereof prior to its completion by Contractor and acceptance by Owner, responsibilities for interim and final cleaning shall be as determined by Engineer in accordance with the General Conditions of the Contract.

END OF SECTION

SECTION 01730

OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. Work included: To aid the continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding products incorporated into the Work, Contractor shall furnish and deliver the data described in this Section and in pertinent other Sections of these Specifications.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Required contents of submittals also may be amplified in pertinent other Sections of these Specifications.

1.2 QUALITY ASSURANCE

- A. In preparing data required by this Section, Contractor shall use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the extent needed for communicating the essential data.
- B. Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 SUBMITTALS

- A. Contractor shall comply with pertinent provisions of Section 01340.
- B. Contractor shall submit two copies of a preliminary draft of the proposed Manual or Manuals to the Engineer for review and comments.
- C. Unless otherwise directed in other Sections, or in writing by Engineer, Contractor shall submit three copies of the final Manual to Engineer prior to indoctrination of operation and maintenance personnel.

PART 2 - PRODUCTS

2.1 INSTRUCTION MANUALS

- A. Where instruction Manuals are required to be submitted under other Sections of these Specifications, Contractor shall prepare in accordance with the provisions of this Section.
- B. Format:
1. Size: 8-1/2" x 11"
 2. Paper: White bond, at least 20 lb weight
 3. Text: Neatly typed
 4. Drawings: 11" in height preferable; bind in with text; foldout acceptable; larger drawings acceptable but fold to fit within the Manual and provide a drawing pocket inside rear cover or bind in with text.
 5. Flysheets: Separate each portion of the Manual with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets may be in color.
 6. Tabs: Provide tab sheets with section labels to identify contents of section. Tabs to be attached to heavy-duty paper designed with an attached label holder.
 7. Binding: Use heavy-duty plastic or fiberboard covers with binding mechanism concealed inside the Manual; 3-ring binders are required.
 8. Measurements: Provide all measurements in U.S. standard units such as feet-and-inches, lbs, and cfm; where items may be expected to be measured within ten years in accordance with metric formulae, provide additional measurements in the "International System of Units" (SI).
- C. Contractor shall provide front and back covers for each Manual, using durable material approved by Engineer, and clearly identified on or through the cover with at least the following information:

OPERATING AND MAINTENANCE INSTRUCTIONS

(name and address of Work)
(name of Contractor)
(general subject of this Manual)
(space for signature of)
(the Engineer, and approval date)

- D. Contents: Contractor shall include at least the following:
1. Neatly typewritten index near the front of the Manual, giving immediate information as to location within the Manual of all emergency information regarding the installation.

2. Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly, and reassembly.
3. Complete nomenclature of all parts of the equipment.
4. Complete nomenclature and part number of all replaceable parts, name and address of nearest vendor, and all other data pertinent to procurement procedures.
5. Copy of all guarantees and warranties issued.
6. Manufacturers' bulletins, cuts, and descriptive data, where pertinent, clearly indicating the precise items included in this installation and deleting, or otherwise clearly indicating, all manufacturers' data with which this installation is not concerned.
7. Such other data as required in pertinent other Sections of these Specifications.

PART 3 - EXECUTION

3.1 INSTRUCTION MANUALS

- A. Preliminary:
 1. Contractor shall prepare a preliminary draft of each proposed Manual.
 2. Contractor shall show general arrangement, nature of contents in each portion, probable number of drawings and their size, and proposed method of binding and covering.
 3. Contractor shall secure Engineer's approval prior to proceeding.
- B. Final: Complete the Manuals in strict accordance with the approved preliminary drafts and the Engineer's review comments.
- C. Revisions:
 1. Following the indoctrination and instruction of operation and maintenance personnel, Contractor shall review all proposed revisions of the Manual with Engineer.
 2. If Contractor is required by Engineer to revise previously approved Manuals, compensation will be made as provided for under "Changes" in the General Conditions.

END OF SECTION

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SECTION 02070

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: General Contractor to carefully demolish and remove from the Springvale No. 4 site, unless otherwise noted, items including but not limited to the following and as shown on the Contract Drawings:
 - 1. Flow tube and flow meter transmitter and piping
 - 2. Discharge piping and fittings
 - 3. Check valve
 - 4. Gate valve
- B. Work Included: Electrical sub-bidder to carefully demolish, remove, and re-install in Springvale 4 replace building from the site items including but not limited to the following and as shown on the Drawing:
 - 1. Remove power conduits and conductors from all equipment to motor control center.
 - 2. Removal of all electrical equipment.
 - 3. Removal of conductors from conduits feeding Springvale No. 4 well and pipe vault and removal of conduits underground to facilitate installation of water piping by general contractor.
 - 4. Remove incoming power conduit and conductors
- C. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this Section.

PART 2 - PRODUCTS - NO PRODUCTS ARE REQUIRED IN THIS SECTION.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 DEMOLITION

- A. By careful study of the Contract Documents, determine the location and extent of selective demolition to be performed.
- B. Carefully identify the limits of the selective demolition and protect all others from damage.
- C. Demolished material shall be considered to be property of the Contractor and shall be completely removed from the job site, and properly disposed of in accordance with all laws, rules and regulations.
- D. Control the dust generated from the methods used in demolition.

END OF SECTION

SECTION 02151

SHORING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide shoring at excavations and elsewhere as required to protect workmen, materials, other properties, and the public.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. As established in the General Condition of the Contract, the Contractor is solely responsible for means and methods of construction and for the sequences and procedures to be used.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. The Contractor shall not perform excavations in unstable ground and shall employ a positive means of containing the unstable ground behind some shoring before excavation may proceed.
- C. Employ a qualified engineer, properly permitted to provide such services at the location of the Work, to design the shoring system and to inspect and report on the quality of its construction.
- D. Comply with pertinent requirements of governmental agencies having jurisdiction.
- E. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this Section.

1.3 SUBMITTALS

- A. Submit shoring design to Engineer for record purposes only.

PART 2 - PRODUCTS

2.1 DESIGN

- A. Design a shoring system which will safely and adequately prevent collapse of adjacent materials and which will permit construction of the Work to the arrangement shown on the Drawings.
- B. All shoring systems shall be designed so as to support all vertical and lateral loads and other surcharge loads imposed on the system during construction.
- C. Secure all needed approvals, including those of governmental agencies having jurisdiction and of adjacent property owners if required, at no additional cost to the Owner.

2.2 MATERIALS

- A. Material shall include, but not necessarily be limited to wood sheeting, sheet piling, soldier piles, lagging, bracing members such as wales, struts, shores and tieback anchors.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Construct and install the shoring system in strict accordance with the design engineer's requirements.

END OF SECTION

SECTION 02210

SITE GRADING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Excavate, backfill, compact, and grade the site to the requirements of the Contract Documents.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Section 02227 Rock Removal
 - 3. Section 02275 Environmental Controls

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.
- B. Use equipment adequate in size, capacity, and numbers to accomplish the work in a timely manner.
- C. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this Section.

PART 2 - PRODUCTS

2.1 SOIL

- A. Fill material
 - 1. The soil to be used for grading shall be obtained from the site cuts or a designated borrow area.
 - 2. Do not permit rocks having a dimension greater than 3 inches in the upper 12 inches of fill or embankment.

2.2 TOPSOIL

- A. Where shown on the Drawings or otherwise required, provide topsoil consisting of friable, fertile soil of loamy character, containing an amount of organic matter normal to the region. The soil shall be capable of sustaining healthy plant life, reasonably free from subsoils, roots, heavy or stiff clay, stones larger than 2 inches in greatest dimension, noxious weeds, sticks, brush, litter, and other deleterious matter.
- B. Obtain topsoil from sources within the project limits, or provide imported topsoil obtained from sources outside the project limits, or from both sources.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 FINISH ELEVATIONS AND LINES

- A. Comply with pertinent provisions of Section 01050.

3.3 PROCEDURES

- A. Utilities
 - 1. Unless shown to be removed, protect active utility lines shown on the Drawings or otherwise made known to the Contractor prior to excavating. If damaged, repair or replace at no additional cost to the Owner.
 - 2. If active utility lines are encountered, and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted.
 - 3. If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Engineer.
 - 4. Do not proceed with permanent relocation of utilities until written instructions are received from the Engineer.
- B. Protection of persons and property:
 - 1. Barricade open holes and depressions occurring as part of this Work, and post warning lights on property adjacent to or with public access.
 - 2. Operate warning lights during hours from dusk to dawn each day.
 - 3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, washout, and other hazards created by operations under this Section.

- C. Dewatering
 - 1. Remove all water encountered during trench and substructure work to an approved location by pumps, drains or other approved methods.
 - 2. Keep excavations and site construction area free from standing water.
- D. Use means necessary to prevent dust from becoming a nuisance to the public.
- E. Maintain access to adjacent areas at all times.

3.4 EXCAVATING

- A. Perform excavating within the limits of the Work to the lines, grades, and elevations shown on the Drawings.
- B. Satisfactory excavated materials:
 - 1. Transport to, and place in, fill or embankment areas within the limits of the Work.
- C. Excavate and backfill in a manner and sequence that will provide proper drainage at all times.
- D. Ditches and gutters:
 - 1. Cut accurately to the cross sections, grades, and elevations shown.
 - 2. Maintain excavations free from leaves, sticks, trash, and other debris until completion of the Work.
 - 3. Dispose of excavated materials as required by the Contract Documents.
- E. Unauthorized excavation:
 - 1. Unauthorized excavation consists of removal of materials beyond indicated sub-grade elevations or dimensions.
- F. Ground surface preparation:
 - 1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from the ground surface prior to placement of fills.
 - 2. Plow, strip, or break up surfaces steeper than one vertical to four horizontal, so that fill material will bond with existing surfaces.
 - 3. When existing ground surface has a density less than that specified under "compacting" for the particular area, break up the ground surface, pulverize, moisture-condition to the optimum moisture content, and compact to required depth and percentage of maximum density.
 - 4. At exposed soils in areas to be paved, scarify to a minimum depth of six (6) inches, and recompact at a moisture content that will permit proper compaction as specified for fill.

3.5 GRADING

A. General

1. Uniformly grade the areas within limits of grading under this Section, including adjacent transition areas.
2. Smooth the finished surfaces within specified tolerance.
3. Compact with uniform levels or slopes between points where elevations are shown on the Drawings, or between such points and existing grades.
4. Where a change of slope is indicated on the Drawings, construct a rolled transition section have a minimum radius of approximately eight (8) feet, unless adjacent construction will not permit such a transition or if such a transition defeats positive control of drainage.

B. Grading outside structure lines:

1. Grade areas adjacent to structure to achieve drainage away from the structures, and to prevent ponding.
2. Finish the surfaces to be free from irregular surface changes, and:
 - a. Shape the surface of areas scheduled to be under walks to line, grade, and cross-section, with finished surface not more than 0.10 feet above or below the required sub-grade elevation.
 - b. Shape the surface of areas scheduled to be under pavement to line, grade, and cross-section, with finished surface not more than 0.05 feet above or below the required sub-grade elevation.

3.6 COMPACTING

A. Control soil compaction during construction to provide the minimum percentage of density specified for each area.

B. Provide not less than the following maximum density of soil material compacted at optimum moisture content for the actual density of each layer of soil material in place, and as approved by the soils engineer.

1. Lawn and unpaved areas:
 - a. Compact the top eight (8) inches of sub-grade and each layer of fill material or backfill material at 90% of maximum density.
 - b. Compact the upper twelve (12) inches of filled areas, or natural soils exposed by excavating, at 85% of maximum density.
2. Walks:
 - a. Compact the top eight (8) inches of sub-grade and each layer of fill material or backfill material at 90% of maximum density.
3. Pavements:
 - a. Compact the top eight (8) inches of sub-grade and each layer of fill material or backfill material at 95% of maximum density for cohesive soil material.

- C. Moisture control:
1. Where sub-grade or layer of soil material must be moisture conditioned before compacting, uniformly apply water to surface of sub-grade or layer of soil material. Prevent free water appearing on surface during or subsequent to compacting operations.
 2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compacting to the specified density.
 3. Soil material that has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing until moisture content is reduced to a satisfactory value as determined by moisture-density relation tests approved by the soils engineer.

3.7 MAINTENANCE

- A. Protection of newly graded areas:
1. Protect newly graded areas from traffic and erosion, and keep free from trash and weeds.
 2. Repair and re-establish grades in settled, eroded, and rutted areas to the specified tolerances.
- B. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape, and compact to the required density prior to further construction.

END OF SECTION

SECTION 02220

EXCAVATING, BACKFILLING, AND COMPACTING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Excavate, backfill, and compact for structures on the site to the elevations shown on the Drawings, as specified herein, and as needed to meet the requirements of the Contract Documents.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division I of these Specifications.
 - 2. Section 01050 Field Engineering
 - 3. Section 02210 Site Grading
 - 4. Section 02221 Trenching, Backfilling and Compacting
 - 5. Section 02227 Rock Removal

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Use equipment adequate in size, capacity, and numbers to accomplish the work of this Section in a timely manner.
- C. Complying with requirements of governmental agencies having jurisdiction.
- D. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01610.

1.4 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data: Within 20 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:

1. Material list of items proposed to be provided under this Section.
2. Manufacturer's specifications and other data needed to provide compliance with specified requirements including the following:
 - a. Sieve analysis of structural fill material
 - b. Testing laboratory reference

PART 2 - PRODUCTS

2.1 MATERIALS

A. Fill and backfill materials:

1. **ORDINARY FILL:** Shall consist of a friable material and contain no objects greater than 6 inches in diameter, contain no more than 30 percent by weight finer than the No. 200 sieve, and be free of trash, ice, snow, tree stumps and roots. Excavated material from on-site sources and which meets these specifications may be used for Ordinary Fill.
2. **SCREENED GRAVEL:** Shall consist of a hard gravel, free from ice and snow, roots, sods, rubbish and other deleterious or organic matter. When spread and compacted, it shall provide a firm, stable base. The screened gravel shall conform to the following gradation requirements.

<u>Sieve Size</u>	<u>Percent Passing</u>
5/8"	100
1/2"	40 - 100
3/8"	15 - 45
#10	0 - 5

3. **STRUCTURAL FILL:** Shall consist of hard durable sand and gravel, be free from ice and snow, roots, sods, rubbish and other deleterious or organic matter. Maximum stone size shall be 4 inches (greatest dimension). In addition, it shall conform to the following gradation requirements:

<u>Sieve Size</u>	<u>Percent Passing</u>	
	<u>Maximum</u>	<u>Minimum</u>
4"	-	100
1"	100	60
No. 4	100	25
No. 16	85	10
No. 50	40	4
No. 200	5	-

4. CRUSHED STONE: Shall consist of durable crushed stone or durable crushed gravel stone, washed, free from ice and snow, stone dust, sand clay, loam, or other deleterious material. The crushed stone shall be uniformly blended and conform to the following:

<u>Sieve Size</u>	<u>Percent Passing</u>
5/8"	100
1/2"	85 - 100
3/8"	15 - 45
#4	0 - 15
#8	0 - 5

5. STONE BASE: Shall consist of crushed stone specified elsewhere in this Section mixed at a 1:1 ratio with stone crusher tailings or stone dust.

2.2 TOPSOIL

- A. Where and if shown on the Drawings or otherwise required, provide screened topsoil consisting of friable, fertile soil of loamy character, capable of sustaining healthy plant life, and reasonably free from subsoil.
- B. Obtain topsoil from sources within the project limits, or provide imported topsoil obtained from sources outside the project limits, or from both sources.
- C. Topsoil from the site or brought in from other places shall be screened before being spread.

2.3 SAND

- A. Sand shall conform to the requirements for Concrete Sand as specified in Section 03300.

2.4 RIPRAP

- A. Provide riprap for slope protection and discharge swale outlet if required by Drawings which is sound, durable rock and is approximately rectangular in shape.
- B. Round stones or stones of soft composition will not be acceptable.
- C. Each stone shall have a minimum weight of twenty (20) lbs. (discharge swale outlet and slope protection) or as indicated on the Drawings.

2.5 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 FINISH ELEVATIONS AND LINES

- A. Work included: Provide such field engineering services as are required for proper completion of the Work including, but not necessarily limited to:
 - 1. Establishing and maintaining lines and grades.
 - 2. Staking of structures.

3.3 PROCEDURES

- A. Underground Facilities:
 - 1. Unless shown to be removed, protect active underground facilities shown on the Drawings or otherwise made known to the Contractor prior to excavating. If damaged, repair or replace at no additional cost to the Owner.
 - 2. If active underground facilities are encountered, and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted.
 - 3. If existing underground facilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Engineer.
 - 4. Do not proceed with permanent relocation of utilities until written instructions are received from the Engineer.
- B. Protection of persons and property:
 - 1. Barricade open holes and depressions occurring as part of the Work, and post warning lights on property adjacent to or with public access.
 - 2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
 - 3. Protect structures, underground facilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, washout, and other hazards created by operations under this Section.
- C. Dewatering:
 - 1. The Contractor shall continually provide and maintain the proper equipment and facilities to control all water entering the excavations. He shall keep the excavations dry to have an undisturbed subgrade, until the structures and underground facilities have been completed, to an extent that will not allow them to be damaged by allowing the water levels to return to their normal levels.
 - 2. The Contractor shall be fully responsible and liable for all damages which might result from the failure of his dewatering system.
 - 3. Silting basins shall be provided.

- 4. Under no circumstances place fill, or install underground facilities in excavations containing water.
- D. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.
- E. Maintain access to adjacent areas at all times.

3.4 EXCAVATING

- A. Perform excavating within the limits of the Work to the lines, grades, and elevations indicated and specified herein.
- B. Satisfactory excavated materials:
 - 1. Transport to, and place in, fill or embankment areas within the limits of the Work.
- C. Unsatisfactory materials:
 - 1. Excavate to a distance below grade as directed by the Engineer, and replace with satisfactory materials.
- D. Surplus materials:
 - 1. Upon completion of backfilling and grading of the site, all excess material shall become the property of the Contractor.
- E. Excavation of rock: See Section 02227 - Rock Removal
- F. Excavate and backfill in a manner and sequence that will provide proper drainage at all times.
- G. Borrow:
 - 1. Obtain material required for fill or embankment in excess of that produced within the grading limits of the Work from borrow areas selected and paid for by the Contractor and approved by the Engineer.
- H. Unauthorized excavation:
 - 1. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific instruction from Engineer.
 - 2. Under footings, foundations, or retaining walls:
 - a. Fill unauthorized excavations by extending the indicated bottom elevation of the footing or base to the excavation bottom, without altering the required top elevation.
 - b. When acceptable to the Engineer, lean concrete fill may be used to bring the bottom elevation to proper position.
 - 3. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations.

- I. Excavating for structures:
 - 1. Conform to elevations and dimensions shown within a tolerance of 0.10 ft, and extending a sufficient distance from footings and foundations to permit placing and removing concrete forms from the work, installation of services, other construction required, and for inspection.
 - 2. In excavating for footings and foundations, take care not to disturb bottom of excavation:
 - a. Excavate by hand tools to final grade just before concrete is placed.
 - b. Trim bottoms to required lines and grades to leave solid base to receive concrete.
 - 3. Excavate for footings and foundations only after general site excavating, filling and grading are complete.
- J. Cold weather protection:
 - 1. Protect excavation bottoms against freezing when atmospheric temperature is less than 35 degrees F.

3.5 FILLING AND BACKFILLING

- A. General:
 - 1. For each classification listed below, place acceptable soil material in layers to required subgrade elevations.
 - 2. In excavations:
 - a. Use satisfactory excavated or borrow material.
 - 3. Under asphalt pavements:
 - a. See Section 02513.
 - 4. Under structures:
 - a. Use structural fill compacted to 95% maximum density or as noted on Drawings.
 - 5. Under Concrete Swail:
 - a. Use Process Gravel
- B. Backfill excavations as promptly as progress of the Work permits, but not until completion of the following.
 - 1. Acceptance of construction below finish grade including, where applicable, damp-proofing and waterproofing.
 - 2. Inspecting, testing, approving, and recording locations of underground facilities.
 - 3. Removing concrete formwork.
 - 4. Removing shoring and bracing, and backfilling of voids with satisfactory materials.
 - 5. Removing trash and debris.
 - 6. Placement of horizontal bracing on horizontally supported walls.
- C. Placing and compacting:
 - 1. Place backfill and fill materials in layers not more than 8 inches in loose depth.
 - 2. Before compacting, moisten or aerate each layer as necessary to provide the optimum moisture content.
 - 3. Compact each layer to required percentage of maximum density for area.

4. Do not place backfill or fill material on surfaces that are muddy, frozen, or containing frost or ice.
5. Place backfill and fill materials evenly adjacent to structures, to required elevations.
6. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around the structure to approximately the same elevation in each lift
7. Topsoil shall be placed to a rolled depth of 6 inches.

3.6 GRADING

- A. See Section 02210.

3.7 COMPACTING

- A. Control soil compaction during construction to provide the minimum percentage of density specified for each area as determined according to ASTM D1556.
- B. Provide not less than the following maximum density of soil material compacted at optimum moisture content for the actual density of each layer of soil material in place, and as approved by the Engineer.
 1. Structures Other Than Water Tank:
 - a. Compact the top 8" of subgrade and each layer of fill material or backfill material at 95% of maximum density.
 2. Lawn and unpaved areas:
 - a. Compact the top 8" of subgrade and each layer of fill material or backfill material at 90% of maximum density.
 - b. Compact the upper 12" of filled areas, or natural soils exposed by excavating, at 85% of maximum density.
 3. Concrete Swail:
 - a. Compact the top 8" of subgrade and each layer of fill material or backfill material at 90% of maximum density.
 4. Pavements:
 - a. Compact the top 12" of subgrade and each layer of fill material or backfill material at 95% of maximum density for cohesive soil material.
- C. Moisture control:
 1. Where subgrade or layer of soil material must be moisture-conditioned before compacting, uniformly apply water to surface of subgrade or layer of soil material to prevent free water appearing on surface during or subsequent to compacting operations.
 2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compacting to the specified density.
 3. Soil material that has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing until moisture content is reduced to a satisfactory value as determined by moisture-density relation tests approved by the Engineer.

3.8 PLACING RIPRAP

- A. Riprap shall be placed, if required by Drawings, at the locations shown on the Drawings.
 - 1. Riprap shall be hand placed so as to provide a flat surface or an even plane.
 - 2. Voids between rocks are to be filled solid with smaller rocks while maintaining an even plane.
 - 3. Larger rocks are to be placed at the toe of slope to provide support for the portion going up the slope.

3.9 FIELD QUALITY CONTROL

- A. If, in the Engineer's opinion based on reports of the testing laboratory, subgrade or fills which have been placed are below specified density, provide additional compacting and testing under the provisions of Section 01410 of these Specifications.

3.10 MAINTENANCE

- A. Protection of newly graded areas:
 - 1. Protect newly graded areas from traffic and erosion, and keep from trash and weeds.
 - 2. Repair and reestablish grades in settled, eroded, and rutted areas.
- B. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape and compact to the required density prior to further construction.

END OF SECTION

SECTION 02221

TRENCHING, BACKFILLING AND COMPACTING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: The Contractor shall provide all excavation and backfilling required for the Work, including the excavation in earth for all structures and pipe lines, removal and disposal of all unsuitable material, shoring, bracing and sheeting, backfilling and compaction, the compaction and maintenance of backfill material, and all other incidental work necessary to provide the space for the construction of the Work of this Contract, in accordance with the Contract Documents.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Use equipment adequate in size, capacity, and numbers to accomplish the work of this Section in a timely manner.
- C. Comply with all the requirements of the Local and State regulatory agencies which pertain to this Section.
- D. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this Section .

1.3 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01610.

1.4 COORDINATION

- A. Coordinate the work of this Section with the Owner to be sure utilities are laid out and the schedule is satisfactory.

PART 2 - PRODUCTS

2.1 SELECT BORROW

- A. Select Borrow: Taken from excavated material to be a friable material consisting of stone, sand, and silt with no objects larger than 3-inches in diameter and free of pavement, trash, loam, ice, snow, tree stumps and roots.

2.2 SAND BORROW

- A. Sand Borrow: Shall be furnished and installed by Contractor. Shall consist of clean, inert, hard durable grains of quartz or other hard durable rocks, free of loam and clay, surface coatings and deleterious material. The allowable amount of material passing a No. 200 sieve as determined by AASHTO-TII shall not exceed ten (10) percent (%) by weight. The maximum particle size for sand borrow shall meet the following Mass Highway Standard
M1.04.00 Type a 1/4-inch
M1.04.0 Type b 3/8 inch

PART 3 - EXECUTION

3.1 TRENCH EXCAVATION

- A. The Contractor shall make all excavation in earth, necessary or incidental to the proposed construction under the terms of this Contract and as herein specified or indicated on the Contract Drawings.
 - 1. All trench excavation shall be accomplished by open cut method, except as may be otherwise expressly permitted by the Owner or as otherwise stipulated in the Contract.
 - 2. All excavation shall be made in such manner and to such widths as will give ample room for properly installing, constructing and inspecting pipelines and structures they are to contain.
 - 3. The width of trenches shall be sufficient to allow thorough compacting of the refill adjacent to the lower quarters of the pipe. At pipe joints such additional width and depth shall be excavated as is necessary to give ample room for properly making and inspecting the pipe joints.
 - 4. Bottom of trenches in earth shall be excavated reasonably flat and to a depth sufficient to allow the bottom of the pipe barrel to rest on relatively undisturbed earth. Blocking is not required under straight lengths of pipe, but the Contractor shall excavate bell holes by hand, to receive the bell end of the pipe and to insure that the pipe will be suitably bedded.
 - 5. Bracing and support of all trench excavation shall meet all requirements of local and State ordinances and OSHA regulations. Sheet piling and bracing, or the use of steel support box shall be used where required to maintain a safe working condition and provide protection from collapse of the trench walls and underlining of existing pavement, damage to the pipeline appurtenances installed under this Contract, and existing underground facilities.

3.2 BACKFILLING AND COMPACTING

- A. Backfill shall be placed in uniform layers. Each layer shall be thoroughly compacted by tamping or vibrating with mechanical compacting equipment.
 - 1. Care shall be taken to compact the backfill materials throughout the full width of the excavation and beneath all pipes and structures.
 - 2. The backfilling of trenches shall proceed as soon as the laying of the pipe(s) and conduits or installation of the structure(s) and following electrical inspection.
 - a. The Contractor shall place select borrow adjacent to, and to eight (8) inches over the top of the pipe(s). This fill shall be spread across the width of the trench and compacted.
 - b. The Contractor shall place sand borrow adjacent to, and to eight (8) inches over top of conduits. The fill shall be spread across the width of the trench and compacted.

3.3 PROTECTION OF PROPERTY

- A. The Contractor shall exercise extreme caution while working close to existing utilities, piping, wells, and other property adjacent to the construction.

3.4 CLEAN-UP

- A. Clean-up shall closely follow the construction and shall include but not be limited to picking up of all surplus equipment and materials, dressing up of all slopes and regrading of area to match existing prior to construction.

END OF SECTION

SECTION 02225

FACILITIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: In the performance of the work of this Contract, the Contractor shall take all the preventative measures to insure the safety of all the underground facilities encountered.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specific requirements and the methods needed for proper performance of the work of this Section.
- B. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 UNDERGROUND FACILITIES

- A. It shall be the Contractors responsibility to contact "Dig Safe," (1-800-344-7233) and any other utility company not covered under "Dig Safe", for accurate field locations prior to construction, so that the underground facility may be avoided during the operation of the excavating equipment.
 - 1. The Contractor shall familiarize himself/herself with Massachusetts General Law, Chapter 82, Section 40.
- B. It shall be the Contractors responsibility to contact all local utility departments, including but not limited to those existing such as the water and sewer departments, the public works department, the highway department, the local electric department, etc.
- C. Underground Facilities include but are not limited to all pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other facilities or attachments, and any casements containing such facilities which have been installed underground to furnish any of the following services or materials.
 - 1. Drinking Water
 - 2. Wastewater
 - 3. Storm Water
 - 4. Electricity
 - 5. Gases
 - 6. Steam
 - 7. Liquid Petroleum Products

8. Telephone
9. Communications
10. Cable Television
11. Traffic Control
12. Fire Prevention
13. Security
14. Irrigation

- D. Municipal Underground Facilities shall include all underground facilities owned or controlled by a Municipal Department or entity, such as a City, Town or District water or sewer department, electric department, department of public works, or other similar department.
- E. Private Underground Facilities shall include all underground facilities not owned or controlled by a Municipal Department or entity, such as private water or sewer services, electric systems, gas or liquid petroleum systems, telephone and communication systems, cable television systems, irrigation systems, fire prevention and security systems, traffic control system and other similar private systems.

1.4 PROTECTION OF UNDERGROUND FACILITIES

- A. All underground facilities including but not limited to water pipes and services, gas pipes, electric, telephone and cable conduits and conductors, sewers and drains which are uncovered by the excavation and which do not, in the opinion of the Owner and Engineer, require to be changed in location, shall be carefully supported and protected from injury by the Contractor. The Contractor shall be responsible for notifying all underground facility companies of actual damage, suspected disturbance, or any other condition associated with said underground facility, which could remotely result in a leak, break or disturbance to service, or other occurrence which could precipitate a danger or inconvenience to the public in the future.
1. The Contractor shall make arrangements with the individual agencies and departments for accurate field locations of all Underground Facilities within the construction area, prior to excavation.
 2. If the Contractor causes damage to any of the Municipal Underground Facilities during his/her construction process, and the locations supplied by the various departments were reasonably accurate, it shall be the Contractor's responsibility to make the necessary repairs to the satisfaction of that particular department. The Contractor may make arrangements for the repair work to be done with the authorized representative of said Municipal Underground Facility, with all costs for repair work to be paid for or directly invoiced to the Contractor.
 3. For this Contract, the terminology "reasonably accurate" shall mean within a distance of four (4) feet, in any direction, from the location mark supplied by the particular Underground Facility Company or department.

4. If damage is done to these specific Municipal Underground Facilities by the Contractor, and the actual location in the ground was beyond the "reasonably accurate" limits as marked and provided, in the opinion of the Owner and Engineer, and that the Contractor took the necessary precautions knowing that an Underground Facility existed within the area, the repair work will either be completed by the appropriate department, or by the Contractor, in which case the additional work will be paid for under a Change Order.
5. If damage is done to Private Underground Facilities, the Contractor shall immediately notify the utility company or owner and provide all assistance as required.

1.5 PROTECTION OF UTILITY POLES

- A. The Contractor shall be responsible for making all arrangements with the appropriate utility company for protection and temporary support of utility poles as needed during construction. The Contractor shall be responsible for any costs associated thereto.

1.6 RELOCATION OF MUNICIPAL UNDERGROUND FACILITIES

- A. Whenever it becomes necessary, in the opinion of the Engineer and Owner, that a Municipal Underground Facility cannot be avoided in the intended construction, the Owner may order the Contractor to relocate or alter the facility under a Written Amendment or Change Order to the Contract.
- B. In removing existing pipes which, in the opinion of the Owner, are in condition to justify relaying, the Contractor will be held responsible and shall pay for any unnecessary breakage, except that necessary in cutting in at the points of disconnection.

END OF SECTION

SECTION 02275

ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Provide environmental controls as required by the Contract Documents for preventing slope washout during pump testing, and protection of catch basin in driveway. The Contractor is required to follow all environmental control procedures identified in this Section and on the Drawings.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.2 DEFINITIONS

- A. Resource Areas: Those areas, conditions or features which, when disturbed by construction activities, create an adverse environmental impact. Such areas include, but are not necessarily limited to densely wooded areas, wetland areas, streams, brooks, rivers, water crossings and steep slopes.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01610.

PART 2 - PRODUCTS

2.1 HAY BALES

1. The hay shall be securely baled with wire to permit re-handling.
2. Individual bales shall be of a longitudinal shape not exceeding one hundred (100) pounds.

PART 3 - EXECUTION

3.1 SEDIMENTATION AND EROSION CONTROL

- A. Plan and execute all operations, particularly those associated with excavation and backfilling, in such a manner as to minimize the amount of excavated and exposed fill or other foreign material that is washed or otherwise carried into wetlands and waterways.
- B. Provide hay bales and silt fence and other materials necessary for sedimentation and erosion control for streams and wetlands.
- C. In the event of sedimentation or siltation prevention measures used by the Contractor prove to be inadequate, the Contractor shall adjust his operations to the extent necessary to prevent any such sedimentation or siltation from occurring.
- D. Keep streams, brooks and other water crossings clear of mud, silt, debris and other objectionable materials resulting from construction operations.
 1. Maintain flow capacity of river and stream channels to prevent unnatural flooding.

3.2 HAYBALES

- A. Hay bales shall consist of hay from acceptable grasses and legumes, free from weeds, reeds, twigs, chaff, debris, other objectionable material or excessive amounts of seeds and grain. Hay shall be free from rot or mold.
 1. The hay bale shall be securely baled with wire to permit re-handling.
 2. Individual bales shall be of a longitudinal shape not exceeding one hundred (100) pounds.

3.3 PROTECTION OF AIR RESOURCES

- A. During the progress of work, the Contractor shall conduct his operations and maintain the area of his activities, including sweeping and sprinkling of water as necessary, so as to minimize the creation and dispersion of dust. If the Owner decides that it is necessary to use calcium chloride for more effective dust control then the Contractor shall furnish and apply the material as directed.
- B. Calcium chloride shall be commercial grade, furnished in 100-pound, 5-ply bags, stored under weatherproof cover and stacked alternately for ventilation. Application for dust control shall be at the rate of about 1/2 pound per square yard per application.

- C. Burning of rubbish and waste material on the site shall not be permitted.

3.4 COMPLIANCE

- A. The construction project shall be in compliance with all Federal, State and Local laws with respect to hazardous materials.
- B. All clean up and disposal operations shall comply with all applicable Federal, State, and Local statutes, regulations and ordinances and anti-pollution laws.
- C. Comply with all requirements of all applicable Federal, State, and Local regulations and all permits issued for the Contract.

END OF SECTION

SECTION 02490

LOAM AND SEED

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Place loam, finish grade, apply lime, fertilizer and seed to all the disturbed lawn areas under the Work of this Contract as specified herein.
- B. Related Work
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for performance of the Work of this Section.
- B. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data: Within 20 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Complete materials list of items proposed to be provided under this Section.
 - 2. Schedule for seeding and fertilizing.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01610.
- B. Immediately remove from the site, materials which are not true to name, and do not comply with the specified requirements, and promptly replace materials meeting the specified requirements.

PART 2 - PRODUCTS

2.1 FERTILIZER

- A. Provide commercial blended 10-20-10 fertilizer delivered to the site in bags labeled with the manufacturer's guaranteed analysis.
 - 1. At least 40 percent of the nitrogen in the fertilizer used shall be in slowly available (organic) form.

2.2 LIME

- A. Lime shall be ground limestone containing not less than 85 percent calcium and magnesium carbonates.
 - 1. Shall be ground to such fineness that at least 50% will pass through a 100-mesh sieve and at least 90 percent shall pass through a 20-mesh sieve.

2.3 GRASS SEED

- A. General: Provide grass seed which is:
 - 1. Free from noxious weed seeds, and re-cleaned;
 - 2. Grade A recent crop seed;
 - 3. Treated with appropriate fungicide at time of mixing;
 - 4. Delivered to the site in sealed containers with dealer's guaranteed analysis.
- B. Proportions by weight (Level Areas)
 - 1. Chewings Fescue - 60 percent
 - 2. Red Top - 20 percent
 - 3. Kentucky Blue - 20 percent
- C. Proportions by weight (Slopes)
 - 1. Creeping Fescue - 40 percent
 - 2. Perennial Ryegrass - 30 percent
 - 3. Red Clover - 10 percent
 - 4. Winter Rye - 15 percent
- D. Within wetland areas (inside BVW where approved by Owner)
 - 1. New England Erosion Control/Restoration Mix for Detention Basins and Moist as furnished by New England Wetland Plants, Inc., Amherst, MA.

2.4 LOAM

- A. Loam shall be a mixture of sand, silt and clay particles as to exhibit sandy and clay-like properties, in and about equal proportions.
 - 1. Shall be free to stumps, roots, heavy or stiff clay, stones larger than 1-inch in diameter, lumps, coarse sand, noxious weeds, sticks, brush or litter.
 - 2. Shall be obtained from previously excavated materials, stockpiled for this use, or material furnished by Contractor.

2.5 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete installation, as selected by the Contractor, subject to the approval of the Engineer.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct all conditions detrimental to timely completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 SPREADING LOAM

- A. Loam shall be placed and prepared by spading or harrowing and raking with iron rakes to a compacted depth of 6-inches.
 - 1. All large lumps, stones, sticks, and roots shall be removed and disposed of by the Contractor.

3.3 SEEDING

- A. Preparation
 - 1. Grade seedbeds, thoroughly removing ridges and depressions, and making areas smooth, continuous, firm planes that ensure proper drainage.
 - 2. Remove soil lumps, rocks, sticks, and other deleterious material.
- B. Lime
 - 1. Apply the approved lime at the rate of 1000 lbs. of ground limestone per 1000 sq. ft. of lawn area. Work into the top 3-4 inches.
- C. Fertilizing
 - 1. Apply the specified fertilizer at the rate of 40 lbs. per 1000 sq. ft. raking lightly into the soil.
- D. Sowing
 - 1. Sow with a seeder designed for the purpose.
 - 2. Sow at the rate of five lbs. per 1000 sq. ft.
 - 3. Promptly after seeding, wet the seedbed thoroughly, and keep all areas moist throughout the germination period.
- E. As soon as seed is sown, it shall be covered with a thin layer of loam and rolled.
- F. Protect seeded areas by erecting temporary fences, barriers, signs and similar protection as necessary to prevent trampling.

3.4 MAINTENANCE

- A. The Contractor shall :
 - 1. Keep all seeded and sodded areas watered.
 - 2. Reseed all areas which do not take.
 - 3. Replace any sections which die during guarantee period.
 - 4. Repair any washouts and re-fertilize and reseed .

3.5 GUARANTEE PERIOD

- A. All seeded areas shall be guaranteed by the Contractor for not less than one (1) full year from the date of substantial completion.

END OF SECTION

SECTION 02513

ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Includes: Provide asphaltic concrete paving, final grade adjustment of valve boxes and preparation of the trench as required by the Contract Documents.
- B. Related Work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Section 02221 Trenching, Backfilling and Compacting

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Comply with pertinent provisions of the following except as may be modified herein.
 - 1. Massachusetts Highway Department, Standard Specifications, for Highways and Bridges of the Commonwealth of Massachusetts latest edition, including all addenda.
- C. The Contractor shall conduct all work in a first-class workmanlike manner, and he/she shall use reasonable and appropriate care and skill in the performance of the work under this Section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product Data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Section 01610.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Gravel Sub-base
 - 1. Shall be as specified in Section 02221.
- B. Asphaltic Concrete paving for binder course and top course shall be class I asphaltic concrete conforming to Sections 420, 460, and M3 of the Massachusetts Standard Specifications.
- C. Asphalt - Tack coat shall consist of either emulsified asphalt, grade RS-1 conforming to Section M3.03.1, or cutback asphalt, grade RC-70 or RC-250 conforming to Section M3.02.0 of the Massachusetts Standard Specifications.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 FINAL PREPARATION OF SUBGRADES

- A. Place twelve (12) inch gravel subgrade and compact by the methods specified in Section 02221.
 - 1. Remove all loose materials from the compacted base prior to placing the asphaltic concrete pavement.

3.3 GENERAL

- A. All asphaltic concrete thickness referred to herein are compacted thickness.
- B. No asphaltic concrete shall be placed when the air temperature is below forty (40) degrees Fahrenheit, or when the material on which the mixtures are to be placed contain frost.
- C. No permanent resurfacing shall be placed in roadways after November 15 or before April 1, unless permission to do so is granted in writing by the Owner. Roadway construction work which will require paving after the closing of the "hot-mix" plants shall be paved with "cold mix".
- D. Maintain asphaltic concrete under this Contract during the guarantee period of one (1) year. Promptly refill and repave all areas which have settled or are otherwise unsatisfactory for traffic.