

**City of
Marlborough, MA**

**Installation of
Commercial Water
Meters and Meter
Transmission Units**

**Bidding Documents
For
Construction**



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Andover, MA 01810
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woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

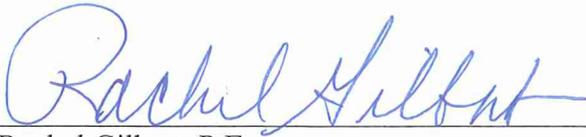
**Contract No. 2014-16
City of Marlborough, MA**

April 2014

SECTION 00007

SEALS PAGE

The engineering material and data contained in these Contract Documents were prepared under the supervision and direction of the undersigned, whose seal as a registered professional engineer is affixed below.



Rachel Gilbert, P.E.
Project Manager
Woodard & Curran, Inc. (Engineer)

4/16/14

Date of Issue



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DIVISION 00

**PROCUREMENT AND CONTRACTING
REQUIREMENTS**

SECTION 00120

INVITATION TO BID

The City of Marlborough (Owner) invites Bidders to submit sealed Bids for the Installation of Commercial Water Meters and MTUs Project 225414-Contract No. 2014-16 which includes, but is not limited to the purchase, delivery and installation of 550 water meters ranging in size from 1.5-inch to 6-inch. The Work also includes installation of Owner furnished Meter Transmission Units (MTUs) on all meters to be installed; and all materials and equipment, services and construction inherent to the Work.

Work associated with the water meter and MTU installation shall be substantially complete within 180 calendar days from the commencement of Contract Time and completed and ready for final payment 210 calendar days from the commencement of Contract Time.

The Project being bid is subject to Massachusetts General Laws, Chapter 30, Section 39M. A pre bid conference will not be held.

Sealed Bids will be received until 10:00 a.m. Thursday, May 1, 2014 at the Office of Assistant Commissioner, Utilities, Attention: Michele Mochnoc Higgins, Department of Public Works, Administration Offices-2nd Floor, 135 Neil Street, Marlborough, MA 01752. Bids will then and there be publicly opened and read aloud. Bids received after the time of announced opening will not be accepted.

Sets of Bidding Documents may be examined at the Issuing Office on or after April 16, 2014 after 10:00 a.m.

Issuing Office:

City of Marlborough Department of Public Works
Administration Offices-2nd Floor
35 Neil Street
Marlborough, MA 01752

Sets of Bidding Documents will be available as of April 16, 2014 and may be obtained **electronically at no cost** by registering on the Owner's website at:

www.marlborough-ma.gov (click Public Works then click DPW Procurement)

Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents or for modifications to the Bidding Documents including electronic conversion.

Bid security in the amount of five percent (5%) of the maximum Bid amount including all alternates must accompany the Bid in accordance with the Instructions to Bidders.

Minimum wage rates as determined by the Commissioner of Department of Workforce Development under the provisions of Massachusetts General Laws, Chapter 149, Sections 26 to 27D inclusive, as amended, apply to this Project. It is the responsibility of the Bidders, before Bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who may be employed for the proposed Work under the resulting Contract.

Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be eligible or responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project or the public to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

All qualified Bidders will receive consideration without regard to race, color, creed, religion, disability, sex or national origin. Minority and Women-owned businesses as certified by the Commonwealth's State Diversity Office ("SDO") are encouraged to apply.

END OF SECTION

SECTION 00200 INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS

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and

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ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any). Additional terms used in these Instructions to Bidders have the meanings indicated below and as may be included in the Supplementary Instructions to Bidders:
- A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the Bidding procedures are to be administered identified in the Invitation to Bid.
 - B. *Supplements* – Those portions of the Bidding Requirements to be submitted with and made a condition of a Bid including required submittals.
 - C. *Notice of Intent to Award* – The written notice to the Successful Bidder indicating conditions precedent to receiving a Notice of Award and Agreement for execution.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Sets of Bidding Documents may be examined and obtained as stated in the Invitation to Bid.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents, Bidding Documents provided by third parties, or for modifications to the Bidding Documents not made by official Addenda, including electronic conversion.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data requested in the Bidding Documents, and within the time frames stipulated upon Owner's request.
- 3.02 Bidders shall meet minimum criteria regarding experience and qualifications set forth in the General Requirements and the Specifications.

ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 *Subsurface and Physical Conditions*

- A. Section 00805 of the Additional Supplementary Conditions identifies:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. Copies of reports and drawings referenced in Section 00805, if any, are included in the Bidding Documents as indicated in Section 00300. Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the Standard General and Supplementary Conditions, has been identified and established in Section 00805.
- C. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.02 *Underground Facilities*

- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.03 *Hazardous Environmental Condition*

- A. Section 00805 of the Additional Supplementary Conditions identifies any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.
- B. Copies of reports and drawings referenced in Section 00805, if any, are included in the Bidding Documents as indicated in Section 00300. Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the Standard General and Supplementary Conditions, has been identified and established in Section 00805.

- C. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
- 4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the Standard General and Supplementary Conditions and Section 00805. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.06 of the Standard General and Supplementary Conditions and Section 00805.
- 4.05 Upon request, Owner may provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall be responsible for obtaining permission and necessary permits and insurance for access to the Site. Bidder shall clean up and restore the Site to its former condition upon completion of any such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.
- 4.06 Reference is made to Article 7 of the Standard General and Supplementary Conditions and Section 00805 for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of contract documents (other than portions thereof related to price) for such other work.
- 4.07 It is the responsibility of each Bidder before submitting a Bid to:
- A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;
 - B. visit the Site(s) and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
 - C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;

- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Section 00805, as containing reliable "technical data", and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Section 00805, as containing reliable "technical data";
 - E. consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;
 - F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) Bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
 - G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - H. correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
 - I. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
 - J. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and

the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 – PRE-BID CONFERENCE

5.01 A pre Bid conference will not be held.

ARTICLE 6 – SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to the Engineer in writing as follows. Submission of questions via email is acceptable.

Woodard & Curran
40 Shattuck Road – Suite 110
Andover, MA 01810
Attention: Rachel Gilbert
Telephone: (978) 557-8150
Fax: (978) 557-7948
Email: rgilbert@woodardcurran.com

7.02 Questions received less than 7 calendar days prior to the date for opening of Bids will not be answered. Interpretations or clarifications considered necessary in response to such questions will be issued by Addenda. Oral statements, interpretations, and clarifications may not be relied upon and will not be binding or legally effective. Only answers in the Addenda will be binding.

7.03 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer, will be available for examination at the Issuing Office, will be posted on the Owner's website as stated in the Invitation to Bid, and will not be mailed or faxed to registered Bidders. **It is each Bidder's responsibility to check the website for Addenda.**

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check, treasurer's or cashier's check, or money order, or a Bid bond (on the form included in the Bidding Documents in Section 00431) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).
- 8.02 The Bid security of the Successful Bidder will be retained until such Bidder has furnished the required contract security, met the conditions of the Notice of Intent to Award (if any) and Notice of Award, and executed the Agreement, whereupon the Bid security will be returned. If the Successful Bidder fails to comply with the conditions set forth in the Notice of Intent to Award (if any) and Notice of Award within the time specified therein, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Agreement or 91 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. See Supplementary Instructions to Bidders (if any) for additional information.
- 8.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within 5 days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 12.01 The Bidding Documents may require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner with the Bid.
- 12.02 As required in the Bidding Documents, or within 5 days after Bid opening if requested by Owner, Bidder shall submit a listing and experience statement with pertinent information regarding similar projects and other evidence of qualification for each Subcontractor, Supplier, individual, or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute without an increase in the Bid.
- 12.03 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest responsible Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).
- 12.04 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form and Supplements are included with the Bidding Documents.
- 13.02 Bids are to be submitted as indicated in the Bid Form. All blanks on the Bid Form shall be completed in ink or typewritten and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form.
- 13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.
- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.

- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.06 A Bid by an individual shall show the Bidder's name and official address.
- 13.07 A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.08 All names shall be printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.10 Postal and e-mail addresses and telephone numbers for communications regarding the Bid shall be shown.
- 13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form. See Supplementary Instructions to Bidders for additional requirements, if any.
- 13.12 Bidders are advised to carefully review those portions of the Bid Form and Supplements requiring Bidder's representations and certifications that are to be submitted with a Bid or subsequent to the Bid opening, and made a condition of the Bid.

ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS

14.01 Bid Pricing

- A. Bidders shall submit a Bid on a lump sum and unit price basis as provided for in the Bid Form. Bid prices shall be stated in both words and figures.
- B. The total of all prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price plus the lump sum amount. The final quantities for unit priced items and Contract Price will be determined in accordance with Paragraph 11.03 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).
- C. Discrepancies between prices written in words and prices written in figures will be resolved in favor of prices written in words. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished a copy of the Bid Form, the Bid Security Form and Supplements. An original signed hard copy of the Bid Form, the original of the Bid security, Supplements (as listed in the Bid Submittal Checklist), and the Bid Submittal Checklist are to be completed and submitted.
- 15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Invitation to Bid and shall be enclosed in a plainly marked package with the Project title, the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation “BID ENCLOSED”.
- 15.03 If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation “BID ENCLOSED”. **A Bid sent by mail or courier shall be addressed to Owner at Department of Public Works, Administration Offices-2nd Floor, 135 Neil Street, Marlborough, MA 01752 Attention: Michele Mochnoc Higgins, Assistant Commissioner, Utilities, 508-624-6910, Extension 7200.**
- 15.04 Bidders shall be responsible to confirm the ability of overnight mailing or courier services to deliver to the Owner’s offices.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is re-Bid, that Bidder will be disqualified from submitting a Bid on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the Invitation to Bid and, unless obviously non-responsive, read aloud publicly.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS

- 19.01 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.02 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, unit prices and other data as may be requested in the Bid Form or prior to the Notice of Award.
- 19.03 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities are submitted.
- 19.04 Owner may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.
- 19.06 Owner may conduct reference checks for the projects listed by the Bidder. Poor references may be a basis for deeming Bidder as not responsible. Reference questions will include, but are not limited to, product quality and durability, overall work quality, performance, timely delivery/completion, customer service, and general customer satisfaction.
- 19.07 In accordance with Massachusetts General Laws, Chapter 30, Section 39M, Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible or eligible or does not meet the specified qualification or quality requirements, based on poor references or otherwise. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project or public to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate Contract terms with the Successful Bidder.
- 19.08 Additional statutory requirements, if any, are included in the Supplementary Instructions to Bidders.

ARTICLE 20 – AWARD OF CONTRACT

20.01 If the Contract is to be awarded, Owner may award the Contract to the responsive, responsible, and eligible Bidder, offering the lowest price for the Bid, and whose Bid is in the best interests of the Project or public.

ARTICLE 21 – CONTRACT SECURITY AND INSURANCE

21.01 Article 5 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any); set forth Owner's requirements as to performance and payment bonds and insurance. The Successful Bidder shall deliver such bonds and evidence of insurance coverage within 10 days of receipt of the Notice of Award.

ARTICLE 22 – SIGNING OF AGREEMENT

22.01 The Owner will issue a Notice Award to the Successful Bidder in the form included in the Bidding Documents. Within 10 days of receipt of the Notice of Award, the Successful Bidder shall comply with the conditions precedent and provide requested information. Based on required reviews and approvals, Owner will thereafter provide the required number of counterparts of the Agreement and other Contract Documents which are identified in the Agreement. The Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and other Contract Documents to Owner within the time specified by the Owner. After obtaining required reviews and approvals for Contract execution, Owner shall return one fully signed counterpart the Agreement and other Contract Documents.

ARTICLE 23 – RETAINAGE

23.01 Provisions concerning retainage are set forth in the Agreement.

ARTICLE 24 – EQUAL EMPLOYMENT OPPORTUNITY, ANTI-DISCRIMINATION, AND AFFIRMATIVE ACTION

24.01 Provisions regarding the requirements for equal employment opportunity, anti-discrimination, and affirmative action programs are set forth in Section 00815 the Additional Supplementary Conditions.

ARTICLE 25 – CONTRACTOR'S WARRANTY AND GUARANTEES; CORRECTION PERIOD

25.01 Provisions concerning Contractor's general warranty and guarantees and correction period are set forth in Articles 6.19, 13.06, and 13.07 of the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (if any).

ARTICLE 26 – SAFETY AND HEALTH REGULATIONS

26.01 This Project is subject to the Safety and Health Regulations of the U.S. Department of Labor set forth in Title 29 CFR, Part 1926 and to all subsequent amendments and other requirements identified in Section 00818 of the Additional Supplementary Conditions.

ARTICLE 27 – SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

27.01 Supplementary Instructions to Bidders, if any, are included in Section 00210 and may include certain provisions required by Laws and Regulations and funding agencies. Bidders are solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

END OF SECTION

SECTION 00210

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

The following supplement shall modify the Instructions to Bidders pursuant to Article 27 therein. This section does not represent or reflect all applicable Laws and Regulations and may only include excerpts, portions, and para-phrasing of certain Laws and Regulations. Bidders are solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

1.01 Supplements and Modifications to the Instructions to Bidders

Add the following to Article 3 – Qualifications of Bidders.

- 3.03 The Owner may reject any Bid where Bidder's reference projects listed in Section 00451 have water meters with a demonstrated failure rate of 5 percent or greater during the first year of use. "Failure" shall be deemed to be any meter stoppage, failure to record, under-register, or over-register. In determining the failure rate of any meter, the Owner may consider its own experience with specific meters in lieu of any reference supplied by the Bidder, or both.

1.02 Applicable Laws for Bid and Award; General

- A. This Contract is being bid under the provisions of Massachusetts General Law (MGL) Chapter 30, Section 39M, *Contracts for construction and materials; manner of awarding*.

1.03 Additional Defined Terms

- A. *Bid security* – Also "bid deposit" as used in MGL Chapter 30, Section 39M.
- B. *Lowest Responsible and Eligible Bidder* – the Successful Bidder, whose Bid is the lowest of those Bidders possessing the skill, ability and integrity necessary for the faithful performance of the Work; who shall certify its ability to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work; who shall certify that all employees to be employed at the Work Site will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins Work, and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee (if awarded a Contract); and who obtains within 10 days of the Notice of Award, the bonds required by the Standard General and Supplementary Conditions and the Additional Supplementary Conditions (consistent with the security by bond required under MGL Chapter 149 Section 29), 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 Owner and

if there is more than 1 surety company, the surety companies shall be jointly and severally liable, in accordance with the provisions of Chapter 30, Section 39M.

1.04 Other Requirements of the MGL Applicable to the Project

- A. **Foreign Corporations:** The provisions of MGL Chapter 30, Section 39L, *Public construction work by foreign corporations; restrictions and reports*, apply to this Project. If a Bidder is a foreign corporation, it shall provide with its Bid, a certificate of the state secretary stating that the corporation has complied with requirements of Section 15.03 of subdivision A of Part 15 of MGL Chapter 156D and the date of compliance, and further has filed all annual reports required by Section 16.22 of subdivision B of Part 16 of said Chapter 156D, and further, will provide such certificate for each Subcontractor that is a foreign corporation if it receives a Notice of Award. See Section 00450 of the Bidding Requirements.
- B. **Taxes:** Bidder shall submit with its Bid, a Certificate of Good Standing with respect to all returns due and taxes from the Commonwealth of Massachusetts Department of Revenue certifying Bidder has complied with all laws relating to taxes, reporting of employees and contractors, and withholding and remitting of child support. Bidder will provide such certificate for each Subcontractor if it receives a Notice of Award. See explanation at the end of this Section.
- C. **Debarment:** Bidders shall not be debarred from bidding on or entering into a public contract in the Commonwealth of Massachusetts under the provisions of MGL Chapter 29, Section 29F, *Debarment from bidding; definitions; lists; notice; affiliates; mitigating circumstances*, or any other applicable debarment provisions of any other chapter of the MGL or any rule or regulations promulgated thereunder.
- D. **Financial Statements:** If Bidder receives a Notice of Award, the following shall be submitted prior to execution of the Agreement in accordance with MGL Chapter 30, Section 39R *Definitions; contract provisions; management and financial statements; enforcement*.
- A statement by management on internal accounting controls;
 - A statement prepared by an independent certified public accountant regarding management's statement; and
 - An audited financial statement for the most recent completed fiscal year.

E. Labor Preferences and Work Hours

1. The provisions of MGL Chapter 149, Section 26, *Public works; preference to veterans and citizens; wages*, apply to this Project whereby employment in the construction of public works is subject to preference being given to citizens of the Commonwealth of Massachusetts, citizens of the town or city where the Project is located, veterans and service-disabled veterans, and citizens of the United States, and the provisions of MGL Chapter 149, Section 179A, *Preference to citizens in awarding public work contracts, violations*, apply to this Project whereby award of contracts for public work is subject to preference being given to persons who are citizens of the United States.
2. The provisions of MGL Chapter 149, Sections 26, 27, and 27A through 27D, as amended, covering minimum wage rates as determined by the Commissioner of Department of Workforce Development, apply to this Project. It is the responsibility of the Bidders, before Bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who may be employed for the proposed Work under the resulting Contract. See Additional Supplementary Conditions.
3. The provisions of MGL Chapter 149, Section 30, *Eight hour day and six day week; emergencies; work on highways*, and Section 34, *Public contracts; stipulation as to hours and days of work; void contracts*, apply to this Project which regulate work hours for public construction.

F. Sales Tax Exemption: MGL Chapter 64H, Section 6, *Exemptions*, subsection (f), exempts from Commonwealth of Massachusetts sales tax, building materials and supplies to be used in the Project, and Bidder shall not include any amount therefor. The words “building materials and supplies” shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge, or other such public work, as well as such materials and supplies physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the Project Site, or while being used exclusively for the transportation of materials for the Project.

G. Safety and Health: This Project is subject to Massachusetts Department of Labor and Industries, Division of Occupational Safety 454 CMR 10.00 et seq. “*Construction Industry Rules and Regulations*”; Massachusetts Department of Public Safety 520 CMR 14.00 et seq. “*Excavation and Trench Safety*”; MGL Chapter 82, *The Laying Out, Alteration, Relocation and Discontinuance Of Public Ways and Specific Repairs Thereon*; MGL Chapter 82A, *Excavation and Trench Safety*, and MGL Chapter 149 Section 129A, *Shoring Trenches for local governments*.

H. Special Licensing

1. Work involving the removal, containment, or encapsulation of asbestos or material containing asbestos must be performed by a contractor licensed in accordance with MGL Chapter 149, Section 6B.
2. Sheet metal work must be performed by a contractor licensed in accordance with 271 CMR, *Rules and Regulations Governing Sheet Metal Workers*, governing licensing, permitting, and sheet metal work in Massachusetts.

- I. Price Adjustments for Certain Materials:** As required by Chapter 150 of the Acts of 2013, the provisions of MGL Chapter 30, Section 38A, *Price adjustment clause in contracts for road, bridge, water and sewer projects awarded under Sec. 39M*, apply to this Project. Base Prices for gasoline are established in Section 00811 SC-12.01.

END OF SECTION



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Certificate of Good Standing

Corporations and other organizations often need proof that they are in good standing with the Commonwealth, i.e., that all tax liabilities have been met in order to obtain financing, sell their business, renew licenses or enter into other business transactions.

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The fastest and easiest way to obtain a Certificate is via our [online application](#). Both taxpayers and authorized practitioners can use this program to obtain a Certificate within a few days. Before beginning this process, make sure that key authenticating data is readily available, including the entity's id number, a list of tax types filed with DOR and the dates when the entity was first required to collect and submit these taxes.

Once the applicant has been authenticated, a search will be made of our databases to identify any returns that need to be filed or bills that remain unpaid. Since this process takes up to 48 hours, users will be given an application number and asked to come back to the program in a couple of days. At that time, fully compliant taxpayers will be able to print a Certificate or request that it be mailed to the address of record. If bills are identified, an opportunity will be given to pay the amount owed via EFW. A Certificate will then be issued. Taxpayers with nonfiled Trustee tax returns (Sales, Meals, Withholding, Room Occupancy), can file and pay within the application and obtain their Certificate. Taxpayers with nonfiled Income and Corporate returns will be given instructions on how to file on paper and obtain a Certificate.

Please note:

Taxpayers responsible for certain taxes such as Alcoholic Beverage Excise, Cigarette Excise, Sales Tax on Boats, International Fuels Tax Agreement, Smokeless Tobacco or Ferry Embarkation will need to file a paper application. This [form](#) can be printed from this site. **Paper applications can take 4 to 6 weeks.**

Paper applications are also required in order to obtain a Waiver of Corporate Tax lien.

Dissolutions: Corporations have not been required to obtain a Certificate of Good Standing prior to a voluntary dissolution since March 1992.

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SECTION 00300

INFORMATION AVAILABLE TO BIDDERS

INFORMATION	LOCATION OF INFORMATION
List of available water meter information	In this Section

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**List of Meter Information
Owner Names in Bold with an asterisk(*) require a Strainer**

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
1-1/2	342 BOSTON POST RD EAST	1002860	60803417	NEPT	F - EXPORT REMOTE ID FOR HH	COLBEA ENTERPRISES LLC	2050 PLAINFILED PIKE	CRANSTON	RI	02921
1-1/2	496 BOSTON POST RD EAST	1003043	60533351	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO VILLAGE PLAZA LLC	255 EAST MAIN ST	GLOUCESTER	MA	01930
1-1/2	85 DEAN RD	1012712	60803411	NEPT	F - EXPORT REMOTE ID FOR HH	KATHRYN S RUPP	85 DEAN RD	MARLBOROUGH	MA	01752
1-1/2	91 MAIN ST	2068259	60644808	NEPT	F - EXPORT REMOTE ID FOR HH	FIRE STATION INVESTMENT TRUST	1 MAIN STREET	WHITINSVILLE	MA	01588
1-1/2	185 MAIN ST	2068720	60682851	NEPT	F - EXPORT REMOTE ID FOR HH	MAIN ST RLTY TR - J MULLAHY	189 NOBSCOT RD	SUDBURY	MA	01776
1-1/2	419 LINCOLN ST	2079364	60614146	NEPT	F - EXPORT REMOTE ID FOR HH	E. MONGEAU 9-M RLTY TRUST	58 CHOCKSETT RD	STERLING	MA	01564-2354
1-1/2	9 WASHINGTON CT	2092280	60512396	NEPT	F - EXPORT REMOTE ID FOR HH	CATH ARCH OF BOSTON	17 WASHINGTON CT	MARLBOROUGH	MA	01752
1-1/2	189 BOSTON POST RD WEST	3100610	60459550	NEPT	F - EXPORT REMOTE ID FOR HH	BOSTON MKT% ADVANTAGE IQ M/S 57	P.O. BOX 2440	SPOKANE	WA	99210-2440
1-1/2	28 BROAD ST	3102061	60594636	NEPT	F - EXPORT REMOTE ID FOR HH	ST MARY'S CONDO TR C/O SALISBURY MGMT	120 SHREWSBURY ST	BOYLSTON	MA	01505
1-1/2	30 BROAD ST	3102120	60587223	NEPT	F - EXPORT REMOTE ID FOR HH	ST MARY'S CONDO TR C/O SALISBURY MGMT	120 SHREWSBURY ST	BOYLSTON	MA	01505
1-1/2	21 MT PLEASANT ST	3119080	60672104	NEPT	F - EXPORT REMOTE ID FOR HH	SILVER TRUST%THOS.MCAULIFFE	10 SHAWMUT AVE.	HUDSON	MA	01749
1-1/2	23 MT PLEASANT ST	3119120	60438718	NEPT	F - EXPORT REMOTE ID FOR HH	SILVER TRUST%THOS.MCAULIFFE	10 SHAWMUT AVE.	HUDSON	MA	01749
1-1/2	376 ROBIN HILL ST	3124100	60510710	NEPT	F - EXPORT REMOTE ID FOR HH	HILLSIDE SCHOOL, WM. HALL DORM	376 ROBIN HILL ST	MARLBOROUGH	MA	01752
1-1/2	374 ROBIN HILL ST	3124120	60510715	NEPT	F - EXPORT REMOTE ID FOR HH	HILLSIDE SCHOOL, WHITT. HALL.	374 ROBIN HILL ST	MARLBOROUGH	MA	01752
1-1/2	390 ROBIN HILL ST	3124183	19743461	BADG	M - MANUAL - OTHER	HILLSIDE SCHOOL	454 ROBIN HILL ST	MARLBORO	MA	01752
1-1/2	4 AVALON DR Apt 100-	4049562	60266210A	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	7 AVALON DR Apt 500-	4049566	60284344A	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	10 AVALON DR Apt 700-	4049568	60284343A	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	14 AVALON DR	4049569	60284336A	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	9 AVALON DR Apt 800-	4049570	60264335	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	11 AVALON DR Apt 900-	4049571	60284339A	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	12 AVALON DR	4049572	60284342A	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	13 AVALON DR	4049573	60284341A	NEPT	F - EXPORT REMOTE ID FOR HH	AVALONBAY COMMUNITIES, INC - MA012RC	P.O. BOX 182635	COLUMBUS	OH	43218-2635
1-1/2	302 BOSTON POST RD EAST Apt	4049780	60417503	NEPT	F - EXPORT REMOTE ID FOR HH	BROOK VILLAGE EAST-BLDG B - ATTN MAINT	319 EAST MAIN ST	MARLBOROUGH	MA	01752
1-1/2	388 BOSTON POST RD EAST	4049850	60585727	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
1-1/2	486 C-D BOSTON POST RD EAST	4049980	60612092	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO VILLAGE PLAZA LLC	255 EAST MAIN ST	GLOUCESTER	MA	01930
1-1/2	586 BOSTON POST RD EAST Apt	4050060	60579161	NEPT	F - EXPORT REMOTE ID FOR HH	SHEFFIELD CT CONDO TRUST C/O PH. ASSOC	705 PLANTATION ST	WORCESTER	MA	01605
1-1/2	596 BOSTON POST RD EAST Apt	4050080	60579159	NEPT	F - EXPORT REMOTE ID FOR HH	SHEFFIELD CT CONDO TRUST C/O PH. ASSOC	705 PLANTATION ST	WORCESTER	MA	01605-2039
1-1/2	616 BOSTON POST RD EAST Apt	4050100	60579162	NEPT	F - EXPORT REMOTE ID FOR HH	SHEFFIELD CT CONDO TRUST C/O PH. ASSOC	705 PLANTATION ST	WORCESTER	MA	01605
1-1/2	608 BOSTON POST RD EAST Apt	4050120	60579163	NEPT	F - EXPORT REMOTE ID FOR HH	SHEFFIELD CT CONDO TRUST C/O PH. ASSOC	705 PLANTATION ST	WORCESTER	MA	01605
1-1/2	624 BOSTON POST RD EAST Apt	4050140	60518445	NEPT	F - EXPORT REMOTE ID FOR HH	SHEFFIELD CT CONDO TRUST C/O PH. ASSOC	705 PLANTATION ST	WORCESTER	MA	01605
1-1/2	630 BOSTON POST RD EAST	4050141	60403327	NEPT	F - EXPORT REMOTE ID FOR HH	650 BPR LLC	517 MIDDLE ST	WEYMOUTH	MA	02189
1-1/2	1001 BOSTON POST RD EAST	4050244	752341	ROCK	K - ITRON MANUAL READ	RAYTHEON CO. C/O NUS CONSULTING GROUP	PO BOX 740	PARK RIDGE	NJ	07656
1-1/2	1001 BOSTON POST RD EAST	4050246	60425939A	NEPT	F - EXPORT REMOTE ID FOR HH	RAYTHEON CO. C/O NUS CONSULTING GROUP	PO BOX 740	PARK RIDGE	NJ	07656
1-1/2	80 BROADMEADOW ST	4050720	60510704	NEPT	F - EXPORT REMOTE ID FOR HH	MILIN ASSOCIATES	80 BROADMEADOW ROAD	MARLBOROUGH	MA	01752
1-1/2	79 BROADMEADOW ST	4050740	60490097	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	87 BROADMEADOW ST	4050760	60490088	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	93 BROADMEADOW ST	4050780	60490087	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	109 BROADMEADOW ST	4050820	60486593	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	111 BROADMEADOW ST	4050840	60490085	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	133 BROADMEADOW ST	4050880	60490098	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	135 BROADMEADOW ST	4050900	60490090	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	139 BROADMEADOW ST	4050920	60464484	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	141 BROADMEADOW ST	4050940	60490089	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	155 BROADMEADOW ST	4050960	60490084	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	165 BROADMEADOW ST	4050980	60490083	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	169 BROADMEADOW ST	4051000	60490091	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	241 BOSTON POST RD WEST	4100640	17555023	BADG	M - MANUAL - OTHER	TADD EDGE	1 RESEARCH DR	WESTBOROUGH	MA	01581
1-1/2	32 BOSTON POST RD WEST	4131141	60746791	NEPT	F - EXPORT REMOTE ID FOR HH	99 RESTAURANT & PUB C/O ADVANTAGE IQ	P.O. BOX 2440	SPOKANE	WA	99210
1-1/2	65 BOSTON POST RD WEST	4131146	95623080	BADG	K - ITRON MANUAL READ	ROSEWOOD DEV. CO.	40 MECHANIC ST SUITE 300	MARLBOROUGH	MA	01752
1-1/2	155 BOSTON POST RD WEST	4131149	60573817	NEPT	F - EXPORT REMOTE ID FOR HH	DAVID BALDUCCI	P.O. BOX 902	SPENCER	MA	01562
1-1/2	293 BOSTON POST RD WEST	4131156	92052237	BADG	K - ITRON MANUAL READ	LINCOLN PROP CO - C/O L. PIERCE	67 FOREST ST	MARLBOROUGH	MA	01752
1-1/2	265 LAKESIDE AVE	4131640	90473153	BADG	K - ITRON MANUAL READ	HOLIDAY INN	265 LAKESIDE AVE.	MARLBOROUGH	MA	01752
1-1/2	413 LAKESIDE AVE	4131645	60704202	NEPT	F - EXPORT REMOTE ID FOR HH	SHELL OIL CO	87 WALKERS BROOK DR	READING	MA	01867
1-1/2	18 HEATHERWOOD DR	4131662	60631908	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
1-1/2	46 LIZOTTE DR	4131677	60533354	NEPT	F - EXPORT REMOTE ID FOR HH	SUNBO%NATIONAL DEVELOPMENT2001	2310 WASHINGTON ST	NEWTON LOWER FALLS	MA	02462
1-1/2	1 ROBIN DR Apt A-X	4131780	60522432	NEPT	F - EXPORT REMOTE ID FOR HH	WOODLANDS C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	4 ROBIN DR Apt D-X	4131800	60522438	NEPT	F - EXPORT REMOTE ID FOR HH	WOODLANDS C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	2 ROBIN DR Apt B-X	4131820	60522433	NEPT	F - EXPORT REMOTE ID FOR HH	WOODLANDS C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	3 ROBIN DR Apt C-X	4131840	60522439	NEPT	F - EXPORT REMOTE ID FOR HH	WOODLANDS C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	208 HAYES MEMORIAL DR	4132293	60620288	NEPT	F - EXPORT REMOTE ID FOR HH	438500 FIRST GROUP , MAIL STOP #3	PO BOX 182207	COLUMBUS	OH	43218-2207

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
1-1/2	400 VALUE WAY	4132498	60431802	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
1-1/2	350 VALUE WAY	4132499	60431801	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
1-1/2	160 WEST MAIN ST	4132520	60535715	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO PLEASANT RLTY., INC	1259 BROADWAY	SOMERVILLE	MA	02143
1-1/2	29 BARTLETT ST	4132622	60455599	NEPT	F - EXPORT REMOTE ID FOR HH	DIMARE DARIO TR	29 BARTLETT ST	MARLBOROUGH	MA	01752
1-1/2	40 CEDAR HILL ST	4132703	60492459	NEPT	F - EXPORT REMOTE ID FOR HH	DAV-TECH PLATING, INC.	P.O. BOX 836	MARLBOROUGH	MA	01752
1-1/2	72 CEDAR HILL ST	4132720	60716167	NEPT	F - EXPORT REMOTE ID FOR HH	TMX PROPERTIES	282 CENTRAL ST UNIT 6	HUDSON	MA	01749
1-1/2	67 FOREST ST	4132944	95005480	BADG	K - ITRON MANUAL READ	RFP LINCOLN FOREST C/O LINCOLN PROP. CO	67 FOREST ST	MARLBOROUGH	MA	01752
1-1/2	26 FOREST ST	4132947	60596412	NEPT	F - EXPORT REMOTE ID FOR HH	N.E. WILLIAMS II LLC C/O NATIONAL DEVELO	2310 WASHINGTON ST	NEWTON LOWER FALLS	MA	02462
1-1/2	62 FOREST ST	4132949	60570511	NEPT	F - EXPORT REMOTE ID FOR HH	NATIONAL DEVELOPMENT	2310 WASHINGTON STREET	NEWTON LOWER FALLS	MA	02462
1-1/2	62 FOREST ST	4132950	60525849	NEPT	F - EXPORT REMOTE ID FOR HH	NATIONAL DEVELOPMENT	2310 WASHINGTON STREET	NEWTON LOWER FALLS	MA	02462
1-1/2	65 SILVER LEAF WAY	4132964	60472699	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
1-1/2	65 A SILVER LEAF WAY	4132965	60472698	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
1-1/2	410 FOREST ST	4132985	17386907	DUPL	K - ITRON MANUAL READ	ELECTRONICS ENVIROMENTS INC	410 FOREST ST	MARLBOROUGH	MA	01752
1-1/2	455 FOREST ST	4133001	60425940	NEPT	F - EXPORT REMOTE ID FOR HH	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
1-1/2	512 FOREST ST	4133018	60620295	NEPT	F - EXPORT REMOTE ID FOR HH	SPECIAL OLYMPICS MASSACHUSETTS	512 FOREST ST - ACCTS PAYABLE	MARLBOROUGH	MA	01752
1-1/2	34 ST MARTIN DR	4133563	60803919	NEPT	F - EXPORT REMOTE ID FOR HH	ACCESS NORTHEAST	34 ST MARTIN DRIVE - SUITE 22	MARLBOROUGH	MA	01752
1-1/2	1 BRIARWOOD LN	5050260	60463092	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	9 BRIARWOOD LN	5050280	60456546A	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	17 BRIARWOOD LN	5050300	60463090A	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	25 BRIARWOOD LN	5050320	60456552	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	26 BRIARWOOD LN	5050340	60456554	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	27 BRIARWOOD LN	5050360	60457494	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	29 BRIARWOOD LN	5050380	60456545	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	30 BRIARWOOD LN	5050400	60456553	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	31 BRIARWOOD LN	5050420	60456547	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	32 BRIARWOOD LN	5050440	60460801	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	34 BRIARWOOD LN	5050460	60457492	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	36 BRIARWOOD LN	5050480	60456551	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	37 BRIARWOOD LN	5050481	60459635	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	38 BRIARWOOD LN	5050500	60436666	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	39 BRIARWOOD LN	5050520	60456549	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	41 BRIARWOOD LN	5050540	60459546A	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	43 BRIARWOOD LN	5050560	60436315	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	44 BRIARWOOD LN	5050580	60463091	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	45 BRIARWOOD LN	5050600	60456550	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	46 BRIARWOOD LN	5050620	60456548	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	47 BRIARWOOD LN	5050640	60436665	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
1-1/2	41 CURTIS AVE Apt 41-X	5051205	60603450	NEPT	F - EXPORT REMOTE ID FOR HH	CURTIS SQ. CONDOS C/O JA WOOD MGMT	594 MARRETT RD, SUITE 21	LEXINGTON	MA	02421
1-1/2	43 CURTIS AVE Apt 43-X	5051206	60596419	NEPT	F - EXPORT REMOTE ID FOR HH	CURTIS SQ. CONDOS C/O JA WOOD MGMT	594 MARRETT RD, SUITE 21	LEXINGTON	MA	02421
1-1/2	49 CURTIS AVE Apt 49-X	5051210	60596410	NEPT	F - EXPORT REMOTE ID FOR HH	CURTIS SQUARE CONDOS % JA WOOD MGMT	594 MARRETT RD, SUITE 21	LEXINGTON	MA	02421-7606
1-1/2	319 EAST MAIN ST	5051460	60651007	NEPT	F - EXPORT REMOTE ID FOR HH	BROOK VILLAGE EAST-BLDG B - ATTN MAINT	319 EAST MAIN ST	MARLBOROUGH	MA	01752
1-1/2	336 EAST MAIN ST	5051740	60464478	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	666 FARM RD Apt 66-X	5051840	60518440	NEPT	F - EXPORT REMOTE ID FOR HH	SHILLINGTON CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	676 FARM RD Apt 76-X	5051860	60523839	NEPT	F - EXPORT REMOTE ID FOR HH	SHILLINGTON CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	384 HEMENWAY ST	5052025	60459549	NEPT	F - EXPORT REMOTE ID FOR HH	CUMMINGS PROPERTIES	200 WEST CUMMINGS PARK	WOBURN	MA	01801
1-1/2	25 HOSMER ST	5052040	60464476	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	25 HOSMER ST	5052040	60464488	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	27 HOSMER ST	5052060	60472697	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	35 HOSMER ST	5052080	60464481	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	37 HOSMER ST	5052100	60464480	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO CT C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	267 MAPLE ST	5052241	60651001	NEPT	F - EXPORT REMOTE ID FOR HH	KENNEDY DENNIS P	247-A MAPLE ST	MARLBOROUGH	MA	01752
1-1/2	257 -267 MAPLE ST	5052242	607814430	NEPT	F - EXPORT REMOTE ID FOR HH	KENNEDY DENNIS P	247-A MAPLE ST	MARLBOROUGH	MA	01752
1-1/2	1 ROYAL CREST DR	5052460	60492776	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	3 ROYAL CREST DR	5052480	60492766	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	5 ROYAL CREST DR	5052500	60492768	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	7 ROYAL CREST DR	5052520	60492826	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	9 ROYAL CREST DR	5052540	60518454	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	13 ROYAL CREST DR	5052580	60508809	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	15 ROYAL CREST DR	5052600	60518450	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	23 ROYAL CREST DR	5052680	60614144	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	39 ROYAL CREST DR	5052840	60582842	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	124 ROYAL CREST DR	5052860	60492602	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	164 ROYAL CREST DR	5052880	60518450A	NEPT	F - EXPORT REMOTE ID FOR HH	AIMCO MS #1	PO BOX 182269	COLUMBUS	OH	43218-2269
1-1/2	190 BOLTON ST Apt 90-X	5052980	60578322	NEPT	F - EXPORT REMOTE ID FOR HH	RIDGEWOOD C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
1-1/2	192 BOLTON ST Apt 92-X	5053000	60571714	NEPT	F - EXPORT REMOTE ID FOR HH	RIDGEWOOD C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	204 BOLTON ST Apt 4-X	5053020	60571709	NEPT	F - EXPORT REMOTE ID FOR HH	RIDGEWOOD C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	206 BOLTON ST Apt 6-X	5053040	60573816	NEPT	F - EXPORT REMOTE ID FOR HH	RIDGEWOOD C/O NORTHBORO PROP MGMT	27 SOUTH ST UNIT 1	NORTHBOROUGH	MA	01532
1-1/2	195 BOSTON SCIENTIFIC WAY A5053447	5053447	1245141	CARL	K - ITRON MANUAL READ	BOSTON SCIENTIFIC C/O SCOTT SANTANGELO	100 BOSTON SCIENTIFIC WAY	MARLBOROUGH	MA	01752
1-1/2	2 MAIN ST	5053500	60690558	NEPT	F - EXPORT REMOTE ID FOR HH	RICHARD GINETTI	78 GREENWOOD ST	MARLBOROUGH	MA	01752
1-1/2	90 ONAMOG ST	5053790	60746807	NEPT	F - EXPORT REMOTE ID FOR HH	GREATER MARLBORO PROGRAMS INC	40 MECHANIC ST SUITE 100	MARLBOROUGH	MA	01752
1-1/2	280 ELM ST Apt B-X	5131380	60594631	NEPT	F - EXPORT REMOTE ID FOR HH	HHTCA C/O FAABS	2 MT ROYAL AVE, SUITE 205	MARLBOROUGH	MA	01752
1-1/2	280 ELM ST Apt A-X	5131400	60585725	NEPT	F - EXPORT REMOTE ID FOR HH	HHTCA C/O FAABS	2 MT ROYAL AVE, SUITE 205	MARLBOROUGH	MA	01752
1-1/2	280 ELM ST Apt C-X	5131420	60585728	NEPT	F - EXPORT REMOTE ID FOR HH	HHTCA C/O FAABS	2 MT ROYAL AVE, SUITE 205	MARLBOROUGH	MA	01752
1-1/2	280 ELM ST Apt D-X	5131440	60594634	NEPT	F - EXPORT REMOTE ID FOR HH	HHTCA C/O FAABS	2 MT ROYAL AVE, SUITE 205	MARLBOROUGH	MA	01752
1-1/2	280 ELM ST Apt E-X	5131460	60594630	NEPT	F - EXPORT REMOTE ID FOR HH	HHTCA C/O FAABS	2 MT ROYAL AVE, SUITE 205	MARLBOROUGH	MA	01752
1-1/2	401 ELM ST	5131480	31900200A	OTHE	M - MANUAL - OTHER	EJR REAL ESTATE TRUST	110 GOLDSTAR BLVD	WORCESTER	MA	01613
1-1/2	158 WATERFORD DR	5132437	60603459	NEPT	F - EXPORT REMOTE ID FOR HH	SEPRACOR	84 WATERFORD DR	MARLBOROUGH	MA	01752
1-1/2	21 AUSTEN WAY	5132439	60459543	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	84 WATERFORD DR	5132441	6060348	NEPT	F - EXPORT REMOTE ID FOR HH	SEPRACOR	84 WATERFORD DR	MARLBOROUGH	MA	01752
1-1/2	295 DONALD J LYNCH BLVD	5132446	60417498	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803
1-1/2	450 DONALD J LYNCH BLVD	5132447	60679967	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803
1-1/2	325 DONALD J LYNCH BLVD	5132451	60431807	NEPT	F - EXPORT REMOTE ID FOR HH	FERRIS DEVELOPMENT GROUP LLC	325 DONALD LYNCH BLVD, S. 200	MARLBOROUGH	MA	01752
1-1/2	15 DICKENSON RD	5132456	60695789	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	15 DICKENSON RD	5132456	60468509	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	400 DONALD J LYNCH BLVD	5132464	70043611	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS 3 LLC C/O NORDBLOM CO	71 3RD AVE	BURLINGTON	MA	01803
1-1/2	19 BRONTE WAY	5132471	60459547	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	19 BRONTE WAY	5132471	60468500	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	45 BRONTE WAY	5132472	60459538	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	51 CHRISTIE WAY	5132481	60459541	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	51 CHRISTIE WAY	5132481	60468506	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	39 AUSTEN WAY	5132482	60459536	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	71 CHRISTIE WAY	5132483	60459548	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	71 CHRISTIE WAY	5132483	60468502	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	27 CHRISTIE WAY	5132484	60459542	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
1-1/2	406 LINCOLN ST	5133320	60525852	NEPT	F - EXPORT REMOTE ID FOR HH	FAIRBANKS DEVELOPMENT LLC	8 COLLEGE AVE	ARLINGTON	MA	02474
1-1/2	150 LOCKE DR	5133328	850305	HERS	K - ITRON MANUAL READ	INTERCONTINENTAL RLTY CORP ATTN S KELLY	1270 SOLDIERS FIELD RD	BRIGHTON	MA	02135
1-1/2	171 LOCKE DR	5133336	60431803	NEPT	F - EXPORT REMOTE ID FOR HH	CAPITAL ONE PARTNERS LLC	6 WOLFPPEN LN	SOUTHBOROUGH	MA	01772
1-1/2	250 LOCKE DR	5133346	60448052	NEPT	F - EXPORT REMOTE ID FOR HH	FIRST COLONY DEVELOPMENT	929 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
1-1/2	191 BOSTON POST RD WEST	4131921	60457606	NEPT	F - EXPORT REMOTE ID FOR HH	DARDEN RESTAURANTS % ADVANTAGE IQ MS434	PO BOX 2440	SPOKANE	WA	99210-2440
1-1/2	449 BOSTON POST RD EAST	1003001	60482476	NEPT	F - EXPORT REMOTE ID FOR HH	LONGFELLOW PLAZA LLC-E WINSKE	181 BOSTON POST RD, EAST	MARLBOROUGH	MA	01752
1-1/2	656 BOSTON POST RD EAST	1003281	19569633	BADG	M - MANUAL - OTHER	GLOBAL MONTELO C/O ALLIANCE ENERGY LLC	36 EAST INDUSTRIAL RD	BRANFORD	CT	06405
1-1/2	21 APPLEBRIAR LN Apt 201-X	4049309	60490365	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
1-1/2	447 BOSTON POST RD EAST	4049920	60669377	NEPT	F - EXPORT REMOTE ID FOR HH	RICHARD H MCCARTHY	15 EDMANDS RD	FRAMINGHAM	MA	01701
1-1/2	107 BROADMEADOW ST	4050800	60490092	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	115 BROADMEADOW ST	4050860	60490086	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC	PO BOX 2348	OMAHA	NE	68103
1-1/2	165 CEDAR HILL ST	4132726	31690718	NEPT	M - MANUAL - OTHER	ASTRA GROUP	1 WEST BOYLSTON ST SUITE LL05	WORCESTER	MA	01605
1-1/2	237 CEDAR HILL ST	4132735	19747769	BADG	M - MANUAL - OTHER	237 CEDAR HILL LLC C/O ALAN GERMAIN	25 COACHMAN RIDGE RD	SHREWSBURY	MA	01545
1-1/2	237 CEDAR HILL ST	4132736	19747775	BADG	M - MANUAL - OTHER	237 CEDAR HILL LLC C/O ALAN GERMAIN	25 COACHMAN RIDGE RD	SHREWSBURY	MA	01545
1-1/2	67 FOREST ST	4132944	60408125	NEPT	F - EXPORT REMOTE ID FOR HH	RFP LINCOLN FOREST C/O LINCOLN PROP. CO	67 FOREST ST	MARLBOROUGH	MA	01752
1-1/2	747 DONALD LYNCH BLVD	5132503	19088636	BADG	M - MANUAL - OTHER	VALUE CITY DEPARTMENT STORES, INC MS#5	P.O. BOX 182633	COLUMBUS	OH	43218-2637
1-11/2	587 BOLTON ST	5053121	60800513	NEPT	F - EXPORT REMOTE ID FOR HH	JHK ENTERPRISES LLC	PO BOX 405	WEST BOYLSTON	MA	01583
2	181 BOSTON POST RD WEST	4131150	70158704	NEPT	F - EXPORT REMOTE ID FOR HH	ROYAL PLAZA TRADE CENTER	181 BOSTON POST RD.	MARLBOROUGH	MA	01752
2	265 LAKESIDE AVE	4131640	60408685	NEPT	F - EXPORT REMOTE ID FOR HH	HOLIDAY INN	265 LAKESIDE AVE.	MARLBOROUGH	MA	01752
2	121 NORTHBORO RD EAST	4131920	70230380	NEPT	F - EXPORT REMOTE ID FOR HH	COLONIAL HEALTH GROUP	121 NORTHBORO RD EAST	MARLBOROUGH	MA	01752
2	300 CEDAR HILL ST	4132760	100296	Conr	K - ITRON MANUAL READ	MASS CONTAINER CO	300 CEDAR HILL ST	MARLBOROUGH	MA	01752
2	377 SIMARANO DR	4132887	60465642	NEPT	F - EXPORT REMOTE ID FOR HH	COLLIERS INTERNATIONAL	160 FEDERAL ST	BOSTON	MA	02110
2	200 FOREST ST	4132960	94193012	BADG	K - ITRON MANUAL READ	HEWLETT-PACKARD UTILITIES	P.O. BOX 431049	PONTIAC	MI	48343
2	165 FOREST ST	4132994	70000889	NEPT	K - ITRON MANUAL READ	ROSEWOOD CO.	40 MECHANIC ST SUITE 300	MARLBOROUGH	MA	01752
2	48 BRIARWOOD LN	5050660	60457493	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
2	50 BRIARWOOD LN	5050680	60457495	NEPT	F - EXPORT REMOTE ID FOR HH	HOME PROPERTIES INC,	PO BOX 2348	OMAHA	NE	68103
2	400 HEMENWAY ST	5052027	60465650	NEPT	F - EXPORT REMOTE ID FOR HH	CUMMINGS PROPERTIES	200 WEST CUMMINGS PARK	WOUBURN	MA	01802
2	100 NICKERSON RD	5053781	8913932	BADG	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4190 - PO BOX 7540	HICKSVILLE	NY	11802-7540
2	200 NICKERSON RD	5053782	88139131	BADG	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4200 - PO BOX 7540	HICKSVILLE	NY	11802-7540
2	300 NICKERSON RD	5053783	9014334	BADG	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	HICKSVILLE	NY	11802-7540	
2	400 NICKERSON RD	5053784	9014333	HERS	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4220 - PO BOX 7540	HICKSVILLE	NY	11802-7540
2	313 BOSTON POST RD WEST	5131158	F018987	HERS	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS LLC	BILL BOX #01-366-4090	HICKSVILLE	NY	11802-7540
2	325 DONALD J LYNCH BLVD	5132451	6015557	HF	K - ITRON MANUAL READ	FERRIS DEVELOPMENT GROUP LLC	325 DONALD LYNCH BLVD, S. 200	MARLBOROUGH	MA	01752
2	200 DONALD J LYNCH BLVD	5132468	60263335	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
2	500 NICKERSON RD	5133018	89139130	BADG	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4230 - PO BOX 7540	HICKSVILLE	NY	11802-7540
2	700 NICKERSON RD	5133021	49893	HERS	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4250 - PO BOX 7540	HICKSVILLE	NY	11802-7540
2	111 LOCKE DR	5133327	6021825	NEPT	K - ITRON MANUAL READ	INTERCONTINENTAL RLTY CORP ATTN S KELLY	1270 SOLDIERS FIELD RD	BRIGHTON	MA	02135
2'	1301 APPLEBRIAR LN Apt 1301-	4049317	60465652	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2'	11 HEATHERWOOD DR	4131667	60654951	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2'	29 PLEASANT ST	5132320	60605993	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO COMM DEVELOPMENT AUTHORITY	255 MAIN ST, SUITE 212	MARLBOROUGH	MA	01752
2"	740 BOSTON POST RD EAST	1003600	60795617	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO DATSUN INC	740 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
2"	118 BROADMEADOW ST Apt 118	1005023	86707942	BADG	K - ITRON MANUAL READ	THE WILLOWS OF MARLBOROUGH CONDOS	PO BOX 20057	WORCESTER	MA	01602
2"	116 BROADMEADOW ST Apt 116	1005025	86403005	BADG	K - ITRON MANUAL READ	THE WILLOWS OF MARLBOROUGH CONDOS	PO BOX 20057	WORCESTER	MA	01602
2"	122 BROADMEADOW ST Apt 122	1005026	86707943	BADG	K - ITRON MANUAL READ	THE WILLOWS OF MARLBOROUGH CONDOS	PO BOX 20057	WORCESTER	MA	01602
2"	124 BROADMEADOW ST Apt 124	1005027	88207939	BADG	K - ITRON MANUAL READ	THE WILLOWS OF MARLBOROUGH CONDOS	PO BOX 20057	WORCESTER	MA	01602
2"	120 BROADMEADOW ST Apt 120	1005028	86707940	BADG	K - ITRON MANUAL READ	THE WILLOWS OF MARLBOROUGH CONDOS	PO BOX 20057	WORCESTER	MA	01602
2"	82 BRIGHAM ST	2004260	7435937	BADG	K - ITRON MANUAL READ	EMPLOYMENT OPTIONS INC	82 BRIGHAM ST	MARLBOROUGH	MA	01752
2"	2 MAPLE ST	2031720	6430102	BADG	K - ITRON MANUAL READ	VERIZON C/O ECOVA -MS3699	PO BOX 2379	SPOKANE	WA	99210-2379
2"	19 MAPLE ST	2031780	99277296	BADG	K - ITRON MANUAL READ	CHARLIE GADBOIS % MG RLTY TR	P.O. BOX 5967	MARLBOROUGH	MA	01752
2"	181 MILL ST SOUTH	2034739	60784212	NEPT	F - EXPORT REMOTE ID FOR HH	BROX INDUSTRIES INC.	1471 METHUEN ST	DRACUT	MA	01826
2"	0 GRANT CT	2065400	60511666	NEPT	F - EXPORT REMOTE ID FOR HH	ARCHDIOCESE OF BOSTON	17 WASHINGTON CT	MARLBOROUGH	MA	01752
2"	153 MAIN ST	2068480	60800804	NEPT	F - EXPORT REMOTE ID FOR HH	T149-155 MAIN ST RLTY TRUST	60 LEON BURMINGHAM PARKWAY	BRIGHTON	MA	02135
2"	81 GRANGER BLVD	2072180	60627107	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBOROUGH SAVINGS BANK	PO BOX 19	MARLBOROUGH	MA	01752
2"	406 LINCOLN ST	2079345	31628692	NEPT	K - ITRON MANUAL READ	DEBRA FAIRBANKS	406 LINCOLN ST	MARLBOROUGH	MA	01752
2"	119 WASHINGTON ST	2093140	60445171	NEPT	F - EXPORT REMOTE ID FOR HH	I C SCHOOL	17 WASHINGTON CT	MARLBOROUGH	MA	01752
2"	19 BARTLETT ST	3096080	60525273	NEPT	F - EXPORT REMOTE ID FOR HH	HOTTINGER-BALDWIN MEAS. INC.	19 BARTLETT ST.	MARLBOROUGH	MA	01752
2"	22 ST MARYS WAY	3102121	60702892	NEPT	F - EXPORT REMOTE ID FOR HH	ST MARY'S CONDO TR C/O SALISBURY MGMT	120 SHREWSBURY ST	BOYLSTON	MA	01505
2"	186 BROAD ST Apt 186-1	3102980	60769054	NEPT	F - EXPORT REMOTE ID FOR HH	MICHAEL ABERTA	17 CHEEVER AVE	SAUGUS	MA	01906
2"	20 CRESCENT ST	3105960	60466085	NEPT	F - EXPORT REMOTE ID FOR HH	EDWARD ROACH TR	1 ELAINE CIRCLE	HUDSON	MA	01749
2"	8 CROWLEY DR	3110562	60818954	NEPT	F - EXPORT REMOTE ID FOR HH	TOLL BROS INC.	134 FLANDERS RD SUITE 275	WESTBOROUGH	MA	01581
2"	20 FORBES AVE	3111205	CNV0091	NEPT	M - MANUAL - OTHER	HARSHAD & JYOTI PATEL	20 FORBES AVE	MARLBOROUGH	MA	01752
2"	1 NORTHBORO RD	3120455	99285918	BADG	K - ITRON MANUAL READ	ST.MARY'S CU, ACCOUNTS PAYABLE	P.O. BOX 729	MARLBOROUGH	MA	01752
2"	234 PLEASANT ST	3121902	32099009	BADG	K - ITRON MANUAL READ	TJM - TAVC REALTY C/O MARK CAPPADONA	63 BOIVIN DR	MARLBOROUGH	MA	01752
2"	406 ROBIN HILL ST	3124160	60569679	NEPT	F - EXPORT REMOTE ID FOR HH	HILLSIDE SCH. STEVENS HALL	406 ROBIN HILL ST	MARLBOROUGH	MA	01752
2"	404 ROBIN HILL ST	3124181	60279875	NEPT	K - ITRON MANUAL READ	HILLSIDE SCHOOL	454 ROBIN HILL ST	MARLBOROUGH	MA	01752
2"	204 WEST MAIN ST	3129660	60560285	NEPT	F - EXPORT REMOTE ID FOR HH	SHALVIS REALTY LLC	1172 BEACON ST SUITE 202	NEWTON	MA	02461-1148
2"	206 -06 WEST MAIN ST	3129661	60558217	NEPT	F - EXPORT REMOTE ID FOR HH	SHALVIS REALTY LLC	1172 BEACON ST SUITE 202	NEWTON	MA	02461-1148
2"	193 BOSTON POST RD WEST Apt	3132000	60457218	NEPT	F - EXPORT REMOTE ID FOR HH	R. K. ASSOCIATES	P.O.BOX 111	DEDHAM	MA	02027
2"	225 BOSTON POST RD WEST	3132080	60574319	NEPT	F - EXPORT REMOTE ID FOR HH	235 BOSTON POST RD LLC % CROSSPOINT	300 THIRD AVE, SUITE 2	WALTHAM	MA	02451
2"	237 BOSTON POST RD WEST	3132081	60585769	NEPT	F - EXPORT REMOTE ID FOR HH	235 BOSTON POST RD LLC % CROSSPOINT	300 THIRD AVE, SUITE 2	WALTHAM	MA	02451
2"	195 BOSTON POST RD WEST Apt	3132120	60451088	NEPT	F - EXPORT REMOTE ID FOR HH	R.K. ASSOCIATES	P.O. BOX 111	DEDHAM	MA	02027
2"	101 APPLEBRIAR LN Apt 101-X	4049301	60445155	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	201 APPLEBRIAR LN Apt 201-X	4049302	60445149	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	301 APPLEBRIAR LN Apt 301-X	4049303	60500510	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	401 APPLEBRIAR LN Apt 401-X	4049304	60504841	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	501 APPLEBRIAR LN Apt 501-X	4049305	60496493	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	601 APPLEBRIAR LN Apt 601-X	4049306	60465647	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	701 APPLEBRIAR LN Apt 701-X	4049307	60465648	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	801 APPLEBRIAR LN Apt 801-X	4049308	60504844	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	30 APPLEBRIAR LN Apt 201-X	4049311	60500516	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	901 APPLEBRIAR LN Apt 901-X	4049313	60504843	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	1001 APPLEBRIAR LN Apt 1001-	4049314	60445156	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	1101 APPLEBRIAR LN Apt 1101-	4049315	60504848	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	1201 APPLEBRIAR LN Apt 1201-	4049316	60504847	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	1401 APPLEBRIAR LN Apt 1401-	4049318	60500483	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	20 APPLEBRIAR LN	4049319	60511661	NEPT	F - EXPORT REMOTE ID FOR HH	THE APPLEBRIAR APARTMENTS	20 APPLEBRIAR LN	MARLBOROUGH	MA	01752
2"	200 BOSTON POST RD EAST	4049620	60612400	NEPT	F - EXPORT REMOTE ID FOR HH	FUGI STEAK HOUSE	200 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
2"	291 BOSTON POST RD WEST	4049745	CNV0095	CNV	K - ITRON MANUAL READ	BRIGHT HORIZONS FAMILY SOLUTIO	P.O. BOX 9177	WATERTOWN	MA	02471
2"	388 BOSTON POST RD EAST	4049822	60131209	NEPT	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	4049823	60150937	NEPT	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	4049824	60155704	NEPT	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	4049825	60127905	NEPT	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	4049827	60150936	NEPT	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	4049828	60165873	NEPT	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST Apt	4049833	60122940	NEPT	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST Apt	4049836	99277297	BADG	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	447 BOSTON POST RD EAST	4049840	60667979	NEPT	F - EXPORT REMOTE ID FOR HH	RICHARD H MCCARTHY	15 EDMANDS RD	FRAMINGHAM	MA	01701
2"	388 BOSTON POST RD EAST Apt	4049841	99282596	BADG	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
2"	388 BOSTON POST RD EAST	4049845	60585767	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	ApI 4049847	99679274	BADG	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	4049851	60569676	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	388 BOSTON POST RD EAST	ApI 4049852	15811834	BADG	K - ITRON MANUAL READ	VILLAGES OF MARLBOROUGH EAST	376 MASS AVE	ARLINGTON	MA	02474
2"	447 BOSTON POST RD EAST	4049860	60667988	NEPT	F - EXPORT REMOTE ID FOR HH	RICHARD H MCCARTHY	15 EDMANDS RD	FRAMINGHAM	MA	01701
2"	416 BOSTON POST RD EAST	ApI 4049870	2111884	CARL	K - ITRON MANUAL READ	MARLBORO SQUARE LLC	181 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
2"	447 BOSTON POST RD EAST	4049880	60667990	NEPT	F - EXPORT REMOTE ID FOR HH	RICHARD H MCCARTHY	15 EDMANDS RD	FRAMINGHAM	MA	01701
2"	449 BOSTON POST RD EAST	4049925	88601044	BADG	K - ITRON MANUAL READ	LONGFELLOW PLAZA LLC-E WINSKE	181 BOSTON POST RD, EAST	MARLBOROUGH	MA	01752
2"	480 BOSTON POST RD EAST	4049960	60511660	NEPT	F - EXPORT REMOTE ID FOR HH	NORTH EAST FOODS	4415 SOUTH HIGHWAY 6	SUGAR LAND	TX	77478
2"	530 BOSTON POST RD EAST	4049962	84035148	BADG	K - ITRON MANUAL READ	MARLBORO VILLAGE PLAZA LLC	255 EAST MAIN ST	GLOUCESTER	MA	01930
2"	547 BOSTON POST RD EAST	4050000	60430341	NEPT	F - EXPORT REMOTE ID FOR HH	ANTHONY VALCHUIS	547 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
2"	561 BOSTON POST RD EAST	4050040	60430344A	NEPT	F - EXPORT REMOTE ID FOR HH	HENRY G. VALCHUIS	547 BOSTON POST RD	MARLBOROUGH	MA	01752
2"	605 BOSTON POST RD EAST	4050145	60699163	NEPT	F - EXPORT REMOTE ID FOR HH	TARGET CORPORATION	PO BOX 908	MANDAN	ND	58554-0908
2"	605 BOSTON POST RD EAST	4050145	60699165	NEPT	F - EXPORT REMOTE ID FOR HH	TARGET CORPORATION	PO BOX 908	MANDAN	ND	58554-0908
2"	661 BOSTON POST RD EAST	4050150	60555491	NEPT	F - EXPORT REMOTE ID FOR HH	CHAMPION CLEANERS	661 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
2"	701 BOSTON POST RD EAST	4050161	51023F149	HERS	K - ITRON MANUAL READ	HOME DEPOT C/O ADVANTAGE IQ MS222	P.O. BOX 2440	SPOKANE	WA	99210-2440
2"	735 BOSTON POST RD EAST	4050230	81110155	BADG	K - ITRON MANUAL READ	JAMES CONG C/O FAY S.G. MAH	735 BOSTON POST ROAD, EAST	MARLBOROUGH	MA	01752
2"	757 BOSTON POST RD EAST	4050231	60538799	NEPT	F - EXPORT REMOTE ID FOR HH	RT 20 MARLBORO PROPERTIES	PO BOX 111	DEDHAM	MA	02027-0111
2"	757 BOSTON POST RD EAST	4050232	CNV0096	CNV	K - ITRON MANUAL READ	RT 20 MARLBORO PROPERTIES	PO BOX 111	DEDHAM	MA	02027-0111
2"	771 BOSTON POST RD EAST	4050235	60457217	NEPT	F - EXPORT REMOTE ID FOR HH	R.K. ASSOCIATES	P.O. BOX 111	DEDHAM	MA	02027
2"	1001 BOSTON POST RD EAST	4050242	92125989	KENT	K - ITRON MANUAL READ	RAYTHEON CO ATTN FACILITIES OPERATIONS	880 TECHNOLOGY PARK DR	BILLERICA	MA	01821
2"	849 BOSTON POST RD EAST	ApI 4050248	40893231	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050249	39016551	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050250	38709485	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050251	38709463	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050252	CNV0097	CNV	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050253	CNV0098	CNV	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050254	37337157	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050255	39137564	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050256	37337158	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	849 BOSTON POST RD EAST	ApI 4050257	39016557	ROCK	K - ITRON MANUAL READ	HAGER MEADOWS % DARTMOUTH	3 PRESTON COURT SUITE 3	BEDFORD	MA	01730
2"	895 -1001 BOSTON POST RD EAST	4050264	70144057	NEPT	F - EXPORT REMOTE ID FOR HH	RAYTHEON CO. C/O NUS CONSULTING GROUP	PO BOX 740	PARK RIDGE	NJ	07656
2"	206 CONCORD RD	4051040	60677027	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO COUNTRY CLUB	206 CONCORD RD	MARLBOROUGH	MA	01752
2"	655 FARM RD	4051800	60403587	NEPT	F - EXPORT REMOTE ID FOR HH	TROMBETTA INC	655 FARM RD	MARLBOROUGH	MA	01752
2"	0 PARMENTER ST	4052370	60807377	NEPT	F - EXPORT REMOTE ID FOR HH	PRIMATE RESEARCH CENTER	PARMENTER RD	SOUTHBORO	MA	01772
2"	65 BOSTON POST RD WEST	4131146	CNV0185	CNV	K - ITRON MANUAL READ	ROSEWOOD DEV. CO.	40 MECHANIC ST SUITE 300	MARLBOROUGH	MA	01752
2"	123 BOSTON POST RD WEST	4131152	60577510	NEPT	F - EXPORT REMOTE ID FOR HH	HILTON C/O AMERESCO	PO BOX 9300	SPOKANE	WA	99209-9300
2"	355 BOSTON POST RD WEST	4131158	60682632	NEPT	F - EXPORT REMOTE ID FOR HH	BOSTON POST 335 LLC	154 SOUTHFIELD RD	CONCORD	MA	01742
2"	24 ST MARTIN DR	4131346	31493478	NEPT	K - ITRON MANUAL READ	MILLER & BISSON PC	1 DUNDEE PARK SUITE 3	ANDOVER	MA	01810
2"	50 DANVELO DR	4131347	70151655	NEPT	F - EXPORT REMOTE ID FOR HH	CCHS, LLC	1 DANVELO DR	MARLBOROUGH	MA	01752
2"	88 DANVELO DR	4131349	60491194	NEPT	F - EXPORT REMOTE ID FOR HH	MWRA	266 BOSTON RD	SOUTHBOROUGH	MA	01772
2"	362 ELM ST	4131470	60581735	NEPT	F - EXPORT REMOTE ID FOR HH	FIRST COLONY DEVELOPMENT	929 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
2"	420 LAKESIDE AVE	4131646	93123100	BADG	K - ITRON MANUAL READ	420 LAKESIDE OFFICE CONDO TRUST		MILFORD	MA	01757
2"	397 WILLIAMS ST	4131656	7157143	HERS	K - ITRON MANUAL READ	THE GUTIERREZ CO	1 WALL ST, 5TH FLOOR	BURLINGTON	MA	01803
2"	130 LIZOTTE DR	4131658	60168921	NEPT	K - ITRON MANUAL READ	MAI REALTY LLC	130 LIZOTTE DRIVE	MARLBOROUGH	MA	01752
2"	130 LIZOTTE DR	4131661	60502903	NEPT	F - EXPORT REMOTE ID FOR HH	REALTY ASSOCIATE FUND VII	112 TURNPIKE RD	WESTBOROUGH	MA	01581
2"	61 HEATHERWOOD DR	4131664	15679788	BADG	K - ITRON MANUAL READ	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	23 DEERFIELD RUN	4131668	96079483	BADG	K - ITRON MANUAL READ	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	15 CANTERBURY WAY	4131670	60612384	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	60 DEERFIELD RUN	4131672	17386856	BADG	K - ITRON MANUAL READ	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	46 LIZOTTE DR	4131676	60522721	NEPT	F - EXPORT REMOTE ID FOR HH	SUNBO%NATIONAL DEVELOPMENT2001	2310 WASHINGTON ST	NEWTON LOWER FALLS	MA	02462
2"	65 DEERFIELD RUN	4131678	16615296	BADG	K - ITRON MANUAL READ	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	24 WHISPERING BROOK ROAD	4131680	18475715	BADG	K - ITRON MANUAL READ	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	19 WHISPERING BROOK ROAD	4131681	17847881	BADG	K - ITRON MANUAL READ	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	35 WHISPERING BROOK RD	4131682	19092950	BADG	M - MANUAL - OTHER	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	46 WHISPERING BROOK RD #43	4131694	60470523	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	45 WHISPERING BROOK RD #40	4131695	60488843	NEPT	F - EXPORT REMOTE ID FOR HH	VILLAGES AT CRANE MEADOW % HARVARD MGMT	PO BOX 2019	MERRIMACK	NH	03054
2"	201 BOSTON POST RD WEST	ApI 4132199	60457231	NEPT	F - EXPORT REMOTE ID FOR HH	R.K. ASSOCIATES	P.O. BOX 111	DEDHAM	MA	02027
2"	277 BOSTON POST RD WEST	4132201	31800178	NEPT	K - ITRON MANUAL READ	HAMPTON INN % BUFF LODG ASSOC	NIAGARA SQUARE STATION	BUFFALO	NY	14201-0480
2"	300 PURITAN WAY	4132495	60471460	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
2"	300 VALUE WAY	4132496	60434711	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
2"	400 VALUE WAY	4132497	60439023	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
2"	100 CAMPUS DR	4132624	60113987	NEPT	K - ITRON MANUAL READ	HINES GLOBAL REIT/ MARLBORO CAMPUS LLC	100 CAMPUS DRIVE, FLOOR 1	MARLBOROUGH	MA	01752
2"	100 CAMPUS DR	4132624	60185704	NEPT	K - ITRON MANUAL READ	HINES GLOBAL REIT/ MARLBORO CAMPUS LLC	100 CAMPUS DRIVE, FLOOR 1	MARLBOROUGH	MA	01752

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
2"	350 CAMPUS DR	4132625	60113984	NEPT	K - ITRON MANUAL READ	HINES GLOBAL REIT/ MARLBORO CAMPUS LLC	100 CAMPUS DRIVE, FLOOR 1	MARLBOROUGH	MA	01752
2"	350 CAMPUS DR	4132625	60185705	NEPT	K - ITRON MANUAL READ	HINES GLOBAL REIT/ MARLBORO CAMPUS LLC	100 CAMPUS DRIVE, FLOOR 1	MARLBOROUGH	MA	01752
2"	250 CAMPUS DR	4132626	60185706	NEPT	K - ITRON MANUAL READ	HOLOGIC CORPORATION	250 CAMPUS DR	MARLBOROUGH	MA	01752
2"	128 BARTLETT ST	4132640	60832874	NEPT	F - EXPORT REMOTE ID FOR HH	RAM MGMT CO., INC	200 US ROUTE ONE SUITE 200	SCARBOROUGH	ME	04074
2"	128 BARTLETT ST	4132641	93220489	NEPT	M - MANUAL - OTHER	RAM MGMT CO., INC	200 US ROUTE ONE SUITE 200	SCARBOROUGH	ME	04074
2"	40 CEDAR HILL ST	4132700	60500507	NEPT	F - EXPORT REMOTE ID FOR HH	DAV-TECH PLATING, INC.	P.O. BOX 836	MARLBOROUGH	MA	01752
2"	150 CEDAR HILL ST	4132721	60577515	NEPT	F - EXPORT REMOTE ID FOR HH	*KEN'S FOODS	P.O. BOX 849	MARLBOROUGH	MA	01752
2"	165 CEDAR HILL ST	4132725	30026687	NEPT	M - MANUAL - OTHER	ASTRA GROUP LLC	1 WEST BOYLSTON ST SUITE LL05	WORCESTER	MA	01605
2"	178 CEDAR HILL ST Apt 1-X	4132727	CNV0249	CNV	K - ITRON MANUAL READ	CEDAR HILL CONDO-INDIGO HOLDIN	11 TOBACCO RD	FRANKLIN	MA	02038
2"	214 CEDAR HILL ST	4132728	CNV0250	CNV	K - ITRON MANUAL READ	214 CEDAR HILL LLC C/O PARSONS	1881 WORCESTER RD SUITE 200	FRAMINGHAM	MA	01701
2"	201 CEDAR HILL ST	4132729	60070587	NEPT	K - ITRON MANUAL READ	WALKER RLTY C/O NEXT GENERATIO	P.O. BOX 4007	WESTFORD	MA	01886
2"	225 CEDAR HILL ST	4132733	16329201	BADG	K - ITRON MANUAL READ	CIL CEDAR LLC	138 TRAPELO RD	LINCOLN	MA	01773
2"	274 CEDAR HILL ST	4132740	60343346	NEPT	M - MANUAL - OTHER	SKINNER INC.	274 CEDAR HILL ST	MARLBOROUGH	MA	01752
2"	257 CEDAR HILL ST	4132742	CNV0255	CNV	K - ITRON MANUAL READ	INVESTERS WARRANTY OF AMERICA	67 S. BEDFORD ST - SUITE 102E	BURLINGTON	MA	01803
2"	259 CEDAR HILL ST	4132743	60608074	NEPT	F - EXPORT REMOTE ID FOR HH	INVESTERS WARRANTY OF AMERICA	67 S. BEDFORD ST - SUITE 102E	BURLINGTON	MA	01803
2"	261 CEDAR HILL ST	4132744	6017135	HERS	K - ITRON MANUAL READ	RREEF BILLBOX G2-2803-596	PO BOX 7549	HICKSVILLE	NY	11802-7549
2"	257 CEDAR HILL ST	4132745	CNV0257	CNV	K - ITRON MANUAL READ	INVESTERS WARRANTY OF AMERICA	67 S. BEDFORD ST - SUITE 102E	BURLINGTON	MA	01803
2"	360 CEDAR HILL ST	4132765	99167995	BADG	K - ITRON MANUAL READ	360 CEDAR HILL HOLDINGS - 3LLC	161 WORCESTER RD	FRAMINGHAM	MA	01701
2"	398 CEDAR HILL ST	4132769	60427199	NEPT	F - EXPORT REMOTE ID FOR HH	METRO PARK - MARLBORO ASSOC.	P.O. BOX 55	WORCESTER	MA	01613
2"	400 VALUE WAY	4132886	01024815C	BADG	M - MANUAL - OTHER	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
2"	400 VALUE WAY	4132886	60471462	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
2"	67 FOREST ST	4132944	60415480	NEPT	F - EXPORT REMOTE ID FOR HH	RFP LINCOLN FOREST C/O LINCOLN PROP. CO	67 FOREST ST	MARLBOROUGH	MA	01752
2"	24 ST IVES WAY	4132948	60470524	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	79 SILVER LEAF WAY	4132951	60470525	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	74 SILVER LEAF WAY	4132952	60485852	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	92 SILVER LEAF WAY	4132953	60662638	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	109 SILVER LEAF WAY	4132954	60470531	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	40 ST IVES WAY	4132955	60470526	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	65 ST IVES WAY	4132956	60465202	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	68 ST IVES WAY	4132957	60470533	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	. BOX 4697	LOGAN	UT	84323
2"	10 RED BUD WAY	4132958	60668020	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	15 RED BUD WAY	4132959	60665182	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	80 RED BUD WAY	4132962	60491192	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	159 SILVER LEAF WAY	4132963	60470534	NEPT	F - EXPORT REMOTE ID FOR HH	BEHRINGER HARVARD STONEGATE LLC	P.O. BOX 4697	LOGAN	UT	84323
2"	200 FOREST ST	4132981	60583150A	NEPT	F - EXPORT REMOTE ID FOR HH	ATLANTIC MARLBOROUGH REALTY LLC	205 NEWBURY ST	FRAMINGHAM	MA	01701
2"	219 FOREST ST	4132997	60592128	NEPT	F - EXPORT REMOTE ID FOR HH	FOREKICKS II RECREATION CENTER	190 ROLLING MEADOWS DR	HOLLISTON	MA	01746
2"	734 FOREST ST	4133004	6015732	HERS	K - ITRON MANUAL READ	RREEF BILLBOX G2-1227-551	PO BOX 7549	HICKSVILLE	NY	11802-7549
2"	630 FOREST ST	4133006	CNV0272	CNV	K - ITRON MANUAL READ	VERIZON C/O ECOVA - MS 3699	PO BOX 2379	SPOKANE	WA	99210-2379
2"	40 HAYES MEMORIAL DR	4133060	CNV0276	CNV	K - ITRON MANUAL READ	40 HAYES MEM DR TR % SCHORER	10 TURNPIKE RD	SOUTHBORO	MA	01772
2"	102 HAYES MEMORIAL DR	4133090	776059	CARL	K - ITRON MANUAL READ	PACE GLOBAL, A SIEMENS BUSINESS	PO BOX 211788	COLUMBIA	SC	29221
2"	0	4999987	03022065	BADG	M - MANUAL - OTHER	ALGONQUIN REGIONAL HIGH SCHOOL	53 PARKERVILLE ROAD	SOUTHBOROUGH	MA	01772
2"	0	4999987	03022065B	BADG	M - MANUAL - OTHER	ALGONQUIN REGIONAL HIGH SCHOOL	53 PARKERVILLE ROAD	SOUTHBOROUGH	MA	01772
2"	53 BRIGHAM ST	5050699	97591626	BADG	K - ITRON MANUAL READ	MOUNTAIN TOP CORPORATION	929 BOSTON POST RD E SUITE 2	MARLBOROUGH	MA	01752
2"	61 BRIGHAM ST	5050704	60457216	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO ASSOCIATES	61 BRIGHAM ST.	MARLBOROUGH	MA	01752
2"	61 BRIGHAM ST	5050704	60574316	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO ASSOCIATES	61 BRIGHAM ST.	MARLBOROUGH	MA	01752
2"	205 EAST MAIN ST	5051300	1004434	BADG	K - ITRON MANUAL READ	PAPA GINO'S INC DBA DANANGELO DBA DELOPS I	PO BOX 740	PARK RIDGE	NJ	07656-0740
2"	240 EAST MAIN ST	5051366	60111903	NEPT	K - ITRON MANUAL READ	GOLUB CORPORATION -	P.O. BOX 1074	SCHENECTADY	NY	12306
2"	255 EAST MAIN ST	5051420	5081300	TRID	K - ITRON MANUAL READ	GOTHAM INK OF NEW ENG IN	255 EAST MAIN ST	MARLBOROUGH	MA	01752
2"	282 EAST MAIN ST	5051430	776055	CARL	K - ITRON MANUAL READ	HOSMER PLAZA RLTY.% J.SPEROU	P.O. BOX 733	MARLBOROUGH	MA	01752
2"	520 FARM RD	5051880	1366708	BADG	K - ITRON MANUAL READ	KANE SCHOOL % CITY OF MARLBOROUGH	140 MAIN ST	MARLBOROUGH	MA	01752
2"	799 FARM RD	5051920	116199745	BADG	K - ITRON MANUAL READ	A BARBERIO FARM RLTY TR	805 FARM RD.	MARLBOROUGH	MA	01752
2"	370 HEMENWAY ST	5052022	60460802	NEPT	F - EXPORT REMOTE ID FOR HH	SOUTH MEADOWS % CUMMINGS PROP	200 WEST CUMMINGS PARK	WOBBURN	MA	01801
2"	420 HEMENWAY ST	5052030	60460796	NEPT	F - EXPORT REMOTE ID FOR HH	CUMMINGS PROPERTIES	200 WEST CUMMINGS PARK	WOBBURN	MA	01801
2"	444 HOSMER ST	5052140	16395968	BADG	K - ITRON MANUAL READ	JAWOREK SCHOOL % CITY OF MARLBOROUGH	140 MAIN ST	MARLBOROUGH	MA	01752
2"	226 MAPLE ST	5052220	7125405	HERS	K - ITRON MANUAL READ	SCRUB A DUB AUTO WASH OF MARLB	172 WORCESTER ROAD	NATICK	MA	01760
2"	246 MAPLE ST	5052260	60665185	NEPT	F - EXPORT REMOTE ID FOR HH	CHARLES RIVER MEDICAL CENTER	246 MAPLE ST UNIT C	MARLBOROUGH	MA	01752
2"	340 MAPLE ST	5052322	70145262	NEPT	F - EXPORT REMOTE ID FOR HH	JC MARLBORO REALTY	340 MAPLE ST	MARLBOROUGH	MA	01752
2"	26 WILSON ST Apt 2-X	5052937	CNV0135	CNV	K - ITRON MANUAL READ	WILSON HEIGHTS CONDOMINIUM	P.O. BOX 1492	WESTBOROUGH	MA	01581
2"	24 WILSON ST Apt 1-X	5052941	CNV0136	CNV	K - ITRON MANUAL READ	WILSON HEIGHTS CONDOMINIUM	P.O. BOX 1492	WESTBOROUGH	MA	01581
2"	451 BOLTON ST	5053071	60690085	NEPT	F - EXPORT REMOTE ID FOR HH	FACILITY MGT CORP	100 SCHOOSSETT ST BLDG 3	PEMBROKE	MA	02359
2"	61 FAIRMOUNT ST Apt 1-X	5053220	60587914	NEPT	F - EXPORT REMOTE ID FOR HH	FAIRMONT HEIGHTS CONDO TRUST	P.O. BOX 1492	WESTBOROUGH	MA	01581
2"	100 GRANGER BLVD Apt 01-X	5053266	60690081	NEPT	F - EXPORT REMOTE ID FOR HH	CENTRE PLACE CONDO TRUST	WELLINGTON - P.O. BOX 1492	WESTBORO	MA	01581
2"	255 MAIN ST	5053655	86991156	BADG	K - ITRON MANUAL READ	WALKER BUILDING % CITY OF MARLBOROUGH	140 MAIN ST	MARLBOROUGH	MA	01752
2"	100 NICKERSON RD	5053781	1117118	ROCK	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4190 - PO BOX 7540	HICKSVILLE	NY	11802-7540

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
2"	300 NICKERSON RD	5053783	M1131515	ROCK	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS		HICKSVILLE	NY	11802-7540
2"	17 WASHINGTON ST	5053960	2639820	OTHE	K - ITRON MANUAL READ	FREEMAN SCHOOL %CITY OF MARLBO	140 MAIN STREET	MARLBOROUGH	MA	01752
2"	509 LINCOLN ST	5130701	27002677	NEPT	K - ITRON MANUAL READ	THE ADVOCATES	1 CLARK HILL SUITE 305	FRAMINGHAM	MA	01702
2"	83 BROAD ST	5131261	84701354	BADG	K - ITRON MANUAL READ	WHITE REAL ESTATE	116 BROAD ST	MARLBOROUGH	MA	01752
2"	289 ELM ST	5131469	60581737	NEPT	F - EXPORT REMOTE ID FOR HH	SANDRA & ANTHONY ANTICO RLTY LLC	72 JEFFERSON ST	MARLBOROUGH	MA	01752
2"	215 FITCHBURG ST	5131522	60397830	NEPT	M - MANUAL - OTHER	ASSABET VALLEY REG VOC HS	215 FITCHBURG ST BLDG A	MARLBOROUGH	MA	01752
2"	100 CROWLEY DR	5131523	60583154	NEPT	F - EXPORT REMOTE ID FOR HH	METRO PARK CORPORATION	929 BOSTON POST RD EAST STE 2	MARLBOROUGH	MA	01752
2"	500 DONALD J LYNCH BLVD	5132450	60411303	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803
2"	325 DONALD J LYNCH BLVD	5132451	60431813	NEPT	F - EXPORT REMOTE ID FOR HH	FERRIS DEVELOPMENT GROUP LLC	325 DONALD LYNCH BLVD, S. 200	MARLBOROUGH	MA	01752
2"	0 DONALD J LYNCH BLVD	5132455	70011805	NEPT	K - ITRON MANUAL READ	FEDERATED DEPARTMENT STORES INC. 71182A	P.O. BOX 182351	COLUMBUS	OH	43218-2351
2"	33 DICKENSON WAY	5132457	60574320	NEPT	F - EXPORT REMOTE ID FOR HH	434800 BELL PARTNERS, MAIL STOP #2	PO BOX 183099	COLUMBUS	OH	43218-3099
2"	423 DONALD J LYNCH BLVD	5132473	60335922	NEPT	K - ITRON MANUAL READ	TARGET CORPORATION	PO BOX 908	MANDAN	ND	58554
2"	870 DONALD J LYNCH BLVD	5132477	60563518	NEPT	F - EXPORT REMOTE ID FOR HH	THE SPORTS AUTHORITY 167 AIQ MS 658	PO BOX 2440	SPOKANE	WA	99210-2440
2"	870 DONALD J LYNCH BLVD	5132477	60555311	NEPT	F - EXPORT REMOTE ID FOR HH	THE SPORTS AUTHORITY 167 AIQ MS 658	PO BOX 2440	SPOKANE	WA	99210-2440
2"	874 DONALD J LYNCH BLVD	5132478	60563517	NEPT	F - EXPORT REMOTE ID FOR HH	NEW ENGLAND DEVELOPMENT	100 CAMBRIDGE SIDE PLACE	CAMBRIDGE	MA	02141
2"	728 DONALD LYNCH BLVD	5132485	19099887	BADG	M - MANUAL - OTHER	OLIVE GARDEN RESTAURANT	C/O FACILITY IQ - MS434	SPOKANE	WA	99210-2440
2"	747 DONALD LYNCH BLVD	5132504	19092956	BADG	M - MANUAL - OTHER	SHOPS AT THE POND	P.O. BOX 743727	DALLAS	TX	75374-3727
2"	769 DONALD LYNCH BLVD	5132506	19092953	BADG	M - MANUAL - OTHER	BEST BUY C/O ADVANTAGE IQ MS441	P.O. BOX 2440	SPOKANE	WA	99210-2440
2"	95 FELTON ST	5132920	31628691	NEPT	K - ITRON MANUAL READ	EQUIVEST MGMT C/O ONEILL	215 SOUTH BROAD ST SUITE 600	PHILADELPHIA	PA	19107
2"	123 FELTON ST	5132940	10791130	BADG	K - ITRON MANUAL READ	STAG II MARLBORO LLC	99 HIGH ST 28TH FLOOR	BOSTON	MA	02110
2"	500 NICKERSON RD	5133018	1136236	BADG	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4230 - PO BOX 7540	HICKSVILLE	NY	11802-7540
2"	406 LINCOLN ST	5133321	60525272	NEPT	F - EXPORT REMOTE ID FOR HH	FAIRBANKS DEVELOPMENT LLC	8 COLLEGE AVE	ARLINGTON	MA	02474
2"	33 LOCKE DR	5133323	85344306	BADG	K - ITRON MANUAL READ	JANELON ASSOCIATES	1 MAIN ST	WHITINSVILLE	MA	01588
2"	111 LOCKE DR	5133327	26070402	NEPT	M - MANUAL - OTHER	INTERCONTINENTAL RLTY CORP ATTN S KELLY	1270 SOLDIERS FIELD RD	BRIGHTON	MA	02135
2"	140 LOCKE DR	5133330	60525265	NEPT	F - EXPORT REMOTE ID FOR HH	INTERCONTINENTAL RLTY CORP ATTN S KELLY	1270 SOLDIERS FIELD RD	BRIGHTON	MA	02135
2"	211 LOCKE DR	5133337	CNV0298	CNV	K - ITRON MANUAL READ	DEC-ATTN: TRACY FARBER	200 FOREST ST - MRO1-3/A47	MARLBOROUGH	MA	01752
2"	280 LOCKE DR	5133340	60746702	NEPT	F - EXPORT REMOTE ID FOR HH	CERMAX CORPORATION	280 LOCKE DR	MARLBOROUGH	MA	01752
2"	250 LOCKE DR	5133346	60478441	NEPT	F - EXPORT REMOTE ID FOR HH	FIRST COLONY DEVELOPMENT	929 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
2"	251 LOCKE DR	5133347	CNV0304	CNV	K - ITRON MANUAL READ	STAG II MARLBOROUGH 2, LLC	99 HIGH ST, 28TH FLOOR	BOSTON	MA	02110
2"	260 LOCKE DR	5133348	60439850	NEPT	F - EXPORT REMOTE ID FOR HH	FIRST COLONY DEVELOPMENT CORP	929 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
3	455 FOREST ST	4133009	97737167	BADG	K - ITRON MANUAL READ	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
3	450 DONALD J LYNCH BLVD	5132448	70261911	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803
3	601 DONALD J LYNCH BLVD	5132458	70161070	NEPT	F - EXPORT REMOTE ID FOR HH	SIMON PROP GROUP C/O ADVANTAGE IQ	P.O. BOX 2440	SPOKANE	WA	99210-2440
3	600 NICKERSON RD	5133019	31911300	NEPT	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4240 - PO BOX 7540	HICKSVILLE	NY	11802-7540
3'	100 PHELPS ST	5052440	70170226	NEPT	F - EXPORT REMOTE ID FOR HH	POST RD. TRAILER PARK & SALES	181 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
3"	45 WILLIAMS ST	3130040	10534667A	BADG	M - MANUAL - OTHER	COURT FACILITIES BUREAU	SUFFOLK COUNTY COURT	BOSTON	MA	02108
3"	0 BOUNDARY ST	3999999	4999999	BADG	M - MANUAL - OTHER	TOWN OF NORTHBORO	NORTHBORO WATER DEPT	NORTHBOROUGH	MA	01532
3"	450 BOSTON POST RD EAST	4049941	70277308	NEPT	F - EXPORT REMOTE ID FOR HH	TRINITY MANAGEMENT LLC	75 FEDERAL ST, 4TH FLOOR	BOSTON	MA	02110
3"	720 BOSTON POST RD EAST	4050220	70173842	NEPT	F - EXPORT REMOTE ID FOR HH	ST ANNS NOVITIATE	720 BOSTON POST RD	MARLBOROUGH	MA	01752
3"	1001 BOSTON POST RD EAST	4050261	70102479C	NEPT	F - EXPORT REMOTE ID FOR HH	RAYTHEON CO. C/O NUS CONSULTING GROUP	PO BOX 740	PARK RIDGE	NJ	07656
3"	270 BROADMEADOW ST	4051021	7037320	HERS	K - ITRON MANUAL READ	GULBANKIAN MOBILE PARK	280 BROADMEADOW RD	MARLBOROUGH	MA	01752
3"	123 BOSTON POST RD WEST	4131147	70144803	NEPT	F - EXPORT REMOTE ID FOR HH	HILTON C/O AMERESCO	PO BOX 9300	SPOKANE	WA	99209-9300
3"	123 BOSTON POST RD WEST	4131152	70028173B	NEPT	F - EXPORT REMOTE ID FOR HH	HILTON C/O AMERESCO	PO BOX 9300	SPOKANE	WA	99209-9300
3"	88 DANGELO DR	4131350	70115144	NEPT	M - MANUAL - OTHER	MWRA	266 BOSTON RD	SOUTHBOROUGH	MA	01772
3"	19 NORTHBORO RD EAST	4131880	98296736	BADG	K - ITRON MANUAL READ	HOMESTEAD VILLAGE	PO BOX 211788	COLUMBIA	SC	29221-6788
3"	201 BOSTON POST RD WEST Apt	4132199	70157694	NEPT	F - EXPORT REMOTE ID FOR HH	R.K. ASSOCIATES	P.O. BOX 111	DEDHAM	MA	02027
3"	277 BOSTON POST RD WEST	4132201	80000986A	NEPT	M - MANUAL - OTHER	HAMPTON INN % BUFF LODG ASSOC	NIAGARA SQUARE STATION	BUFFALO	NY	14201-0480
3"	257 SIMARANO DR	4132490	70161071	NEPT	F - EXPORT REMOTE ID FOR HH	257 SIMARANO DR LLC % OBRIEN COM. PROP	5 MOUNT ROYAL AVE SUITE 200	MARLBOROUGH	MA	01752
3"	350 VALUE WAY	4132499	70149424	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
3"	445 SIMARANO DR	4132510	71156503	NEPT	F - EXPORT REMOTE ID FOR HH	445 SIMARANO DR LLC C/O ALDEN REALTY	PO BOX 252148	LOS ANGELES	CA	90025
3"	250 CAMPUS DR	4132626	70040834A	NEPT	M - MANUAL - OTHER	HOLOGIC CORPORATION	250 CAMPUS DR	MARLBOROUGH	MA	01752
3"	110 CAMPUS DR	4132627	70045381A	NEPT	M - MANUAL - OTHER	HINES GLOBAL REIT/ MARLBORO CAMPUS LLC	100 CAMPUS DRIVE, FLOOR 1	MARLBOROUGH	MA	01752
3"	138 -148 BARTLETT ST	4132642	70063850	NEPT	M - MANUAL - OTHER	120 BARTLETT ST MARLBOROUGH LLC % RAM	200 US ROUTE 1, SUITE 200	SCARBOROUGH	ME	04074
3"	0 BOSTON POST RD EAST	4132660	103721	BADG	M - MANUAL - OTHER	MARLBORO COUNTRY CLUB	192 CONCORD ROAD	MARLBOROUGH	MA	01752
3"	0 CONCORD RD	4132680	5020	BADG	M - MANUAL - OTHER	MARLBORO COUNTRY CLUB, INC	200 CONCORD ROAD	MARLBOROUGH	MA	01752
3"	26 FOREST ST	4132947	70050972A	NEPT	F - EXPORT REMOTE ID FOR HH	N.E. WILLIAMS II LLC C/O NATIONAL DEVELO	2310 WASHINGTON ST	NEWTON LOWER FALLS	MA	02462
3"	669 FOREST ST	4132999	70146526	NEPT	F - EXPORT REMOTE ID FOR HH	ADCOLE CORPORATION	FOREST & BARTLETT STS.	MARLBOROUGH	MA	01752
3"	455 FOREST ST	4133003	70144054	NEPT	F - EXPORT REMOTE ID FOR HH	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
3"	455 FOREST ST	4133008	70146528	NEPT	F - EXPORT REMOTE ID FOR HH	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
3"	455 FOREST ST	4133010	70146527A	NEPT	F - EXPORT REMOTE ID FOR HH	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
3"	455 FOREST ST	4133016	70149678	NEPT	F - EXPORT REMOTE ID FOR HH	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
3"	41 BRIGHAM ST	5050703	1353859	ROCK	K - ITRON MANUAL READ	MOUNTAIN TOP CORP	929 BOSTON POST RD E SUITE 2	MARLBOROUGH	MA	01752
3"	740 FARM RD Apt 740-X	5051940	95007869	BADG	K - ITRON MANUAL READ	FARM RD CONDO'S	740 FARM RD	MARLBOROUGH	MA	01752
3"	750 FARM RD Apt 750-X	5051960	70140469	NEPT	F - EXPORT REMOTE ID FOR HH	FARM ROAD CONDO'S	740 FARM ROAD	MARLBOROUGH	MA	01752

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
3"	760 FARM RD Apt 760-X	5051980	112119183	BADG	K - ITRON MANUAL READ	FARM RD CONDO'S	740 FARM RD	MARLBOROUGH	MA	01752
3"	50 BOSTON SCIENTIFIC WAY	5053442	70146517	NEPT	F - EXPORT REMOTE ID FOR HH	BOSTON SCIENTIFIC C/O SCOTT SANTANGELO	100 BOSTON SCIENTIFIC WAY	MARLBOROUGH	MA	01752
3"	195 BOSTON SCIENTIFIC WAY	5053448	70145969	NEPT	F - EXPORT REMOTE ID FOR HH	BOSTON SCIENTIFIC C/O SCOTT SANTANGELO	100 BOSTON SCIENTIFIC WAY	MARLBOROUGH	MA	01752
3"	51 ORCHARD ST	5053800	89334483	OTHE	K - ITRON MANUAL READ	BIGELOW SCHOOL % CITY OF MARLBOROUGH	140 MAIN ST	MARLBOROUGH	MA	01752
3"	85 SAWIN ST	5053840	89334482	BADG	K - ITRON MANUAL READ	HILDRETH SCHOOL % CITY OF MARLBOROUGH	140 MAIN ST	MARLBOROUGH	MA	01752
3"	25 UNION ST	5053860	7940335	BADG	K - ITRON MANUAL READ	MARLBORO MIDDLE SCHOOL %CITY OF MARLBORO	140 MAIN ST	MARLBOROUGH	MA	01752
3"	20 BROAD ST	5131180	70114211A	NEPT	M - MANUAL - OTHER	ACADEMY KNOLL	22 BROAD ST	MARLBOROUGH	MA	01752
3"	215 FITCHBURG ST	5131521	70220755	NEPT	F - EXPORT REMOTE ID FOR HH	ASSABET VALLY REG. VOC. H.S.	215 FITCHBURG ST	MARLBOROUGH	MA	01752
3"	2 MOUNT ROYAL AVE	5131870	81176114	BADG	K - ITRON MANUAL READ	HAYNES MGMT INC	34 WASHINGTON ST SUITE DEC7	WELLESLEY HILLS	MA	02481
3"	4 MOUNT ROYAL AVE	5131871	81176115	BADG	K - ITRON MANUAL READ	HAYNES MGMT ATTN- S BRADLEY	34 WASHINGTON ST SUITE DEC7	WELLESLEY HILLS	MA	02481
3"	99 PLEASANT ST	5132361	70188783	NEPT	F - EXPORT REMOTE ID FOR HH	CHRISTOPHER HEIGHTS	99 PLEASANT ST	MARLBOROUGH	MA	01752
3"	145 PLEASANT ST Apt A-X	5132400	CNV0233	CNV	K - ITRON MANUAL READ	PLEASANT CT CONDOMINIUM TRUST	P.O. BOX 210	HOPKINTON	MA	01748
3"	84 WATERFORD DR	5132441	70207397	NEPT	F - EXPORT REMOTE ID FOR HH	SEPRACOR	84 WATERFORD DR	MARLBOROUGH	MA	01752
3"	121 DONALD J LYNCH BLVD	5132442	70165651	NEPT	F - EXPORT REMOTE ID FOR HH	N.E. SPORTS MGMT. CORP.	121 DONALD J LYNCH BLVD	MARLBOROUGH	MA	01752
3"	295 DONALD J LYNCH BLVD	5132446	70144052	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803
3"	0 DONALD J LYNCH BLVD	5132459	96228910	BADG	K - ITRON MANUAL READ	REGAL ENTERTAINMENT GROUP MS#4	SOLOMON POND 15 221721	COLUMBUS	OH	43218
3"	521 DONALD J LYNCH BLVD	5132460	96229204	BADG	K - ITRON MANUAL READ	SEARS HOLDING MGMT COR C/O ADV IQ-MS1624	P. O. BOX 2440	SPOKANE	WA	99210-2440
3"	0 DONALD J LYNCH BLVD	5132461	96077377	BADG	K - ITRON MANUAL READ	SIMON PROP GROUP C/O ADVANTAGE IQ	P.O. BOX 2440	SPOKANE	WA	99210-2440
3"	200 DONALD J LYNCH BLVD	5132469	70094392A	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803
3"	771 DONALD J LYNCH BLVD	5132508	70263687	NEPT	F - EXPORT REMOTE ID FOR HH	T & T LEASING CORP	1715 BROADWAY	SAUGUS	MA	01906
3"	600 NICKERSON RD	5133019	1218557	ROCK	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4240 - PO BOX 7540	HICKSVILLE	NY	11802-7540
3"	280 LOCKE DR	5133341	70215498	NEPT	F - EXPORT REMOTE ID FOR HH	CERMAX CORPORATION	280 LOCKE DR	MARLBOROUGH	MA	01752
3"	280 LOCKE DR	5133342	70215497	NEPT	F - EXPORT REMOTE ID FOR HH	CERMAX CORPORATION	280 LOCKE DR	MARLBOROUGH	MA	01752
4	33 BELLEVIEW AVE	2055600	91040337	NEPT	F - EXPORT REMOTE ID FOR HH	RUTH NEILL	33 BELLEVIEW AVE	MARLBOROUGH	MA	01752
4	157 UNION ST	5053890	70198487	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO HOSPITAL	157 UNION STREET	MARLBOROUGH	MA	01752
4"	860 BOSTON POST RD EAST	1003783	70198484	NEPT	F - EXPORT REMOTE ID FOR HH	EAST WW PLANT % CITY OF MARLBOROUGH	140 MAIN ST	MARLBOROUGH	MA	01752
4"	303 BOUNDARY ST	3101139	CNV0068	BADG	K - ITRON MANUAL READ	WEST WW PLANT	BOUNDARY ST.	MARLBOROUGH	MA	01752
4"	1001 BOSTON POST RD EAST	4050244	70141117	NEPT	F - EXPORT REMOTE ID FOR HH	RAYTHEON CO. C/O NUS CONSULTING GROUP	PO BOX 740	PARK RIDGE	NJ	07656
4"	181 BOSTON POST RD WEST	4131148	70169441	NEPT	F - EXPORT REMOTE ID FOR HH	ROYAL PLAZA HOTEL	181 BOSTON POST RD.WEST.	MARLBOROUGH	MA	01752
4"	197 BOSTON POST RD WEST	4131154	31974562B	NEPT	F - EXPORT REMOTE ID FOR HH	RK ASSOCIATES	P.O. BOX 111	DEDHAM	MA	02027
4"	265 LAKESIDE AVE	4131640	70140468A	NEPT	F - EXPORT REMOTE ID FOR HH	HOLIDAY INN	265 LAKESIDE AVE.	MARLBOROUGH	MA	01752
4"	397 WILLIAMS ST	4131656	7116018	HERS	K - ITRON MANUAL READ	THE GUTIERREZ CO	1 WALL ST, 5TH FLOOR	BURLINGTON	MA	01803
4"	300 PURITAN WAY	4132410	70164291	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
4"	300 PURITAN WAY	4132495	70164290	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
4"	273 WEST MAIN ST Apt 273-X	4132580	70085267	NEPT	F - EXPORT REMOTE ID FOR HH	L. WILLIAMS CON TR % PHOENIX A	705 PLANTATION ST	WORCESTER	MA	01605
4"	400 VALUE WAY	4132885	70164289	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
4"	400 VALUE WAY	4132888	70162033A	NEPT	F - EXPORT REMOTE ID FOR HH	TJX COMPANY	PO BOX 182438	COLUMBUS	OH	43218
4"	200 FOREST ST	4132961	70278611	NEPT	F - EXPORT REMOTE ID FOR HH	ATLANTIC MARLBOROUGH REALTY LLC	205 NEWBURY ST	FRAMINGHAM	MA	01701
4"	455 FOREST ST	4132998	98148558	BADG	M - MANUAL - OTHER	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
4"	455 FOREST ST	4133009	70146629	NEPT	F - EXPORT REMOTE ID FOR HH	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
4"	455 FOREST ST	4133014	70146627	NEPT	F - EXPORT REMOTE ID FOR HH	ROHM AND HAAS COMPANY #4501281978	PO BOX 2769	MIDLAND	MI	48641-2769
4"	0	4999999	03116837	BADG	M - MANUAL - OTHER	ALGONQUIN REGIONAL HIGH SCHOOL	53 PARKERVILLE ROAD	SOUTHBOROUGH	MA	01772
4"	397 BOLTON ST	5053060	95148437A	OTHE	M - MANUAL - OTHER	MARLBORO COMM DEVELOPMENT AUTHORITY	255 MAIN ST, SUITE 212	MARLBOROUGH	MA	01752
4"	431 BOLTON ST	5053070	5699312	HERS	K - ITRON MANUAL READ	MHS % CITY OF MARLBOROUGH	140 MAIN ST	MARLBOROUGH	MA	01752
4"	400 BOLTON ST	5053080	70154444	NEPT	F - EXPORT REMOTE ID FOR HH	BOLTON MANOR NURSING HOME	400 BOLTON ST	MARLBOROUGH	MA	01752
4"	100 BOSTON SCIENTIFIC WAY	5053444	70147844	NEPT	F - EXPORT REMOTE ID FOR HH	BOSTON SCIENTIFIC C/O SCOTT SANTANGELO	100 BOSTON SCIENTIFIC WAY	MARLBOROUGH	MA	01752
4"	195 BOSTON SCIENTIFIC WAY A	5053447	70147845	NEPT	F - EXPORT REMOTE ID FOR HH	BOSTON SCIENTIFIC C/O SCOTT SANTANGELO	100 BOSTON SCIENTIFIC WAY	MARLBOROUGH	MA	01752
4"	240 MAIN ST	5053650	80023253	BADG	K - ITRON MANUAL READ	MARLBORO COMM DEVELOPMENT AUTHORITY	255 MAIN ST, SUITE 212	MARLBOROUGH	MA	01752
4"	157 UNION ST	5053940	70210121	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO HOSPITAL	157 UNION STREET	MARLBOROUGH	MA	01752
4"	157 UNION ST	5053941	90181797	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO HOSPITAL	UNION ST	MARLBOROUGH	MA	01752
4"	313 BOSTON POST RD WEST	5131158	CNV0190	CNV	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS LLC	BILL BOX #01-366-4090	HICKSVILLE	NY	11802-7540
4"	215 FITCHBURG ST	5131500	03022911B	BADG	M - MANUAL - OTHER	ASSABET VALL VOC SCHOOL	215 FITCHBURG ST BLDG E	MARLBOROUGH	MA	01752
4"	215 FITCHBURG ST	5131520	3022491	BADG	M - MANUAL - OTHER	ASSABET VALLEY REG VOC HS	215 FITCHBURG ST BLDG A	MARLBOROUGH	MA	01752
4"	158 WATERFORD DR	5132437	70204215B	NEPT	F - EXPORT REMOTE ID FOR HH	SEPRACOR	84 WATERFORD DR	MARLBOROUGH	MA	01752
4"	290 DONALD J LYNCH BLVD	5132445	7177557	HERS	K - ITRON MANUAL READ	BGI HOLDINGS III,LLC C/O GREAT POINT INV	71 3RD AVE	BURLINGTON	MA	01803
4"	112 DONALD J LYNCH BLVD	5132453	70149562	NEPT	F - EXPORT REMOTE ID FOR HH	112 APPLE EIGHT HOSPITALITY	PO BOX 980	ELLWOOD CITY	PA	16117
4"	400 DONALD J LYNCH BLVD	5132464	70046601A	NEPT	F - EXPORT REMOTE ID FOR HH	BGI HOLDINGS 3 LLC C/O NORDBLOM CO	71 3RD AVE	BURLINGTON	MA	01803
4"	700 NICKERSON RD	5133021	23634691	OTHE	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4250 - PO BOX 7540	HICKSVILLE	NY	11802-7540
4"	170 LOCKE DR	5133335	CNV0296	CNV	K - ITRON MANUAL READ	INTERCONTINENTAL RLTY CORP ATTN S KELLY	1270 SOLDIERS FIELD RD	BRIGHTON	MA	02135
4"	175 MAPLE ST	5133440	70192178	NEPT	F - EXPORT REMOTE ID FOR HH	PMC PROPERTY GROUP	175 MAPLE ST SUITE 323	MARLBOROUGH	MA	01752
6"	31 CROSBY RD	1011880	10126344	BADG	K - ITRON MANUAL READ	KENING SONG & YUHONG ZHANY	31 CROSBY ROAD	MARLBOROUGH	MA	01752
6"	104 ROBERT RD	1044295	CNV0045	BADG	K - ITRON MANUAL READ	IRAJ GASHGAE	104 ROBERT RD	MARLBOROUGH	MA	01752
6"	37 AZALEA LN Apt -195	1146278	96264001	BADG	K - ITRON MANUAL READ	MAGGIE HILL	25 DURBY ST	FRAMINGHAM	MA	01701
6"	66 RINGOLD ST	2085800	09008931	BADG	K - ITRON MANUAL READ	JOHN & MARY RAYMOND	66 RINGOLD ST	MARLBOROUGH	MA	01752

Size	Address	Account #	Meter #	Meter Manuf.	Reading System	Owner Name	Owner Address	Owner City	Owner State	Owner Zip
6"	46 WINTHROP ST	2095260	8013203	BADG	K - ITRON MANUAL READ	JACQUELINE A. VAUGAS	46 WINTHROP ST	MARLBOROUGH	MA	01752
6"	40 WITHERBEE ST	2095500	12623595	BADG	K - ITRON MANUAL READ	PAUL D. JOHNSON	40 WITHERBEE ST	MARLBOROUGH	MA	01752
6"	1 DANGELO DR	4131345	70157696	NEPT	F - EXPORT REMOTE ID FOR HH	*KEN'S FOOD, INC.	PO BOX 849	MARLBOROUGH	MA	01752
6"	319 EAST MAIN ST	5051440	10566750	BADG	K - ITRON MANUAL READ	BROOK VILLAGE EAST-BLDG B - ATTN MAINT	319 EAST MAIN ST	MARLBOROUGH	MA	01752
6"	400 NICKERSON RD	5053784	1173284	ROCK	K - ITRON MANUAL READ	NORMANDY REAL ESTATE PARTNERS	BB #01-366-4220 - PO BOX 7540	HICKSVILLE	NY	11802-7540
6"	473 LINCOLN ST	5131660	CNV0214	CNV	K - ITRON MANUAL READ	GERMAN PACHECO	473 LINCOLN ST	MARLBOROUGH	MA	01752
6"	197 PLEASANT ST	5132440	CNV0235	CNV	K - ITRON MANUAL READ	STE. CHRETIENNE EDUCATIONAL IN	197 PLEASANT ST.	MARLBOROUGH	MA	01752
6	200 FOREST ST	4132960	11254441-1	BADG	K - ITRON MANUAL READ	HEWLETT-PACKARD UTILITIES	P.O. BOX 431049	PONTIAC	MI	48343
6	200 FOREST ST	4132980	11523039-1	BADG	K - ITRON MANUAL READ	HEWLETT PACKARD UTILITIES	P.O. BOX 431049	PONTIAC	MI	48343
6"	303 BOSTON POST RD EAST	4049805	70093901	NEPT	F - EXPORT REMOTE ID FOR HH	JO-LEN MOBILE HME PK,V&V RLTY	287 BOSTON POST RD EAST	MARLBOROUGH	MA	01752
6"	1 DANGELO DR	4131348	70157697B	NEPT	F - EXPORT REMOTE ID FOR HH	*KEN'S FOODS, INC.	PO BOX 849	MARLBOROUGH	MA	01752
6"	0 BOSTON POST RD EAST	4132660	70198489	NEPT	F - EXPORT REMOTE ID FOR HH	MARLBORO COUNTRY CLUB	192 CONCORD ROAD	MARLBOROUGH	MA	01752
6"	0 CONCORD RD	4132680	5025	OTHE	K - ITRON MANUAL READ	MARLBORO COUNTRY CLUB, INC	200 CONCORD ROAD	MARLBOROUGH	MA	01752
6"	75 FELTON ST	5132919	CNV0260	CNV	K - ITRON MANUAL READ	MARLBOROUGH WCP HOTEL LLC	75 FELTON ST	MARLBOROUGH	MA	01752
6"	280 LOCKE DR	5133340	70214434	NEPT	F - EXPORT REMOTE ID FOR HH	CERMAX CORPORATION	280 LOCKE DR	MARLBOROUGH	MA	01752
8"	0 PARMENTER ST	4052370	70173393	NEPT	F - EXPORT REMOTE ID FOR HH	PRIMATE RESEARCH CENTER	PARMENTER RD	SOUTHBORO	MA	01772

SECTION 00401

BID FORM

ARTICLE 1 – DEFINED TERMS

- 1.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the Standard General and Supplementary Conditions, and the Additional Supplementary Conditions, if any.

ARTICLE 2 – BID RECIPIENT

- 2.01 This Bid is submitted to:

**City of Marlborough
c/o Department of Public Works
Administration Offices-2nd Floor
135 Neil Street
Marlborough, MA 01752
Attention: Michele Mochnoc Higgins, Assistant Commissioner**

- 2.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 3 – BIDDER'S ACKNOWLEDGEMENTS

- 3.01 Bidder accepts all of the terms and conditions of the Bidding Documents including, without limitation:
- A. those dealing with disposition of Bid security;
 - B. those included in the Supplementary Instructions to Bidders;
 - C. insurance and bonding requirements (Payment Bond and Performance Bond each equal to 100% of the total Contract Price) set forth in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any;
 - D. Contract Times as set forth in the Agreement; and
 - E. provisions for liquidated damages as set forth in the Agreement.
- 3.02 This Bid will remain subject to acceptance for 90 days after the Bid opening or for such longer period of time that Bidder may agree to in writing upon request of Owner.

3.03 Bidder acknowledges receipt of the following Addenda.

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

3.04 Bidder acknowledges the representations and certifications included in Section 00450 are made a condition of the Bid.

ARTICLE 4 – BASIS OF BID

4.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s) based on unit prices below.

BID PRICES SHALL EXCLUDE SALES AND USE TAX.

Item No.	Item Description with Unit Price in Written Words	Estimated Quantity & Unit	Unit Bid Price		Total Bid Item Price	
			Dollars	Cents	Dollars	Cents
Provide Single Jet Water Meters						
1A	Furnish 1.5 inch Single Jet	176				
	@ _____ Dollars and _____/100 PER EACH	EA				
1B	Install 1.5 inch Single Jet	176				
	@ _____ Dollars and _____/100 PER EACH	EA				
2A	Furnish 2 inch Single Jet	245				
	@ _____ Dollars and _____/100 PER EACH	EA				
2B	Install 2 inch Single Jet	245				
	@ _____ Dollars and _____/100 PER EACH	EA				

Item No.	Item Description with Unit Price in Written Words	Estimated Quantity & Unit	Unit Bid Price		Total Bid Item Price	
			Dollars	Cents	Dollars	Cents
3A	Furnish 3 inch Single Jet @ _____ _____ Dollars and _____/100 PER EACH	63				
		EA				
3B	Install 3 inch Single Jet @ _____ _____ Dollars and _____/100 PER EACH	63				
		EA				
4A	Furnish 4 inch Single Jet @ _____ _____ Dollars and _____/100 PER EACH	43				
		EA				
4B	Install 4 inch Single Jet @ _____ _____ Dollars and _____/100 PER EACH	43				
		EA				
5A	Furnish 6 inch Single Jet @ _____ _____ Dollars and _____/100 PER EACH	23				
		EA				
5B	Install 6 inch Single Jet @ _____ _____ Dollars and _____/100 PER EACH	23				
		EA				
6	Install Owner Furnished Meter Transmission Units (MTUs) @ _____ _____ Dollars and _____/100	538				
		EA				
7	Install Owner Furnished Pit Meter Transmission Units @ _____ _____ Dollars and _____/100 PER EACH	12				
		EA				

Item No.	Item Description with Unit Price in Written Words	Estimated Quantity & Unit	Unit Bid Price		Total Bid Item Price	
			Dollars	Cents	Dollars	Cents
8	Owner's Contingency Allowance (per Paragraph 11.02 of the General Conditions): Additional costs for Non-Standard Installations and statutory price adjustments for gasoline (<u>exclude from Mobilization/Demobilization calculation</u>) @ One Hundred Thousand Dollars and 00/100 LUMP SUM	1	\$	100,000.00	\$	100,000.00
		LS				
9	Owner's Contingency Allowance (per Paragraph 11.02 of the General Conditions): Additional computer hardware and software required for deployment of the MTUs and coordination with Owner's AMR system (<u>exclude from Mobilization/Demobilization calculation</u>) @ Ten Thousand Dollars and 00/100 NOT TO EXCEED	1	\$	10,000.00	\$	10,000.00
		NTE				
10	Mobilization and Demobilization @ _____ Dollars and _____/100 LUMP SUM	1				
		LS				

TOTAL BID PRICE for all Work specified based on schedule above (Items 1 - 10)

_____ Dollars and _____/100 \$ _____
 (Use words) (Use figures)

- 4.02 Contract Price Adjustments: Per MGL c30s38A, Base Prices to be used for Contract Price Adjustments are established in Section 00811, SC-12.01.
- 4.03 Unit Prices have been computed in accordance with Paragraph 11.03.A of the General Conditions and Supplementary Conditions, if any.
- 4.04 Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price items will be based on actual quantities determined and based on the unit prices included above, as provided in the General Conditions and Supplementary Conditions, if any.

ARTICLE 5 – TIME OF COMPLETION

- 5.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any, on or before the dates or within the number of calendar days indicated in the Agreement.
- 5.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 6 – ATTACHMENTS TO THIS BID

- 6.01 The following documents are submitted with and made a condition of this Bid:

00431 Bid Security Form

OR

Required Bid security in the form of _____

Supplements:

00432 Proposed Subcontractors Form

00433 Bid Submittal Checklist

Items required by 00440 Information, Schedules and Data

00441 Proposed Suppliers Form

00450 Bidder's Representations and Certifications including required submittals

00451 Contractor's Qualifications

00452 Non-collusion Affidavit

ARTICLE 7 – BID SUBMITTAL

7.01 This Bid is submitted by:

A Corporation

Corporation Name: _____

State of incorporation: _____

Type: _____
(General Business, Professional, Service, other)

By: _____
(Signature – attach evidence of authority to sign)

Name *(typed or printed)*: _____

Title: _____

(CORPORATE SEAL)

Attest: _____
(Signature of Corporate Secretary)

Business Address: _____

Phone & Facsimile Nos: _____

Email address: _____

Date of qualification to do business as out-of-state corporation: _____

A Limited Liability Company (LLC)

LLC Name: _____

State in which organized: _____

By: _____
(Signature – attach evidence of authority to sign)

Name *(typed or printed)*: _____

Title: _____

Business Address: _____

Phone & Facsimile Nos: _____

Email address: _____

A Joint Venture

First Joint Venturer Name: _____

By: _____
(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business Address: _____

Phone & Facsimile Nos: _____

Email address: _____

Second Joint Venturer Name: _____

By: _____
(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business Address: _____

Phone & Facsimile Nos: _____

Email address: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, corporation and limited liability company that is a party to the joint venture should be in the manner indicated above.)

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name *(typed or printed)*: _____

Business Address: _____

Phone & Facsimile Nos: _____

Email address: _____

An Individual

Name *(typed or printed)*: _____

By: _____
(Individual's signature)

Doing business as: _____

Business Address: _____

Phone & Facsimile Nos: _____

Email address: _____

SUBMITTED ON:
EIN/FEIN:

Communications concerning this Bid shall be addressed to:

Name: _____

Title: _____

Business Address: _____

Phone No.: _____

Facsimile No.: _____

Email address: _____

END OF SECTION

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SECTION 00431

BID SECURITY FORM

Based on EJCDC C-430 Bid Bond (Penal Sum Form) prepared by the Engineers Joint Contract Documents Committee

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name and Address of Principal Place of Business*):

OWNER (*Name and Address*):

BID

Bid Due Date:

Description (*Project Name and Include Location*):

BOND

Bond Number:

Date (*Not earlier than Bid due date*):

Penal sum

_____ (Words)

\$ _____ (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

Bidder's Name and Corporate Seal (Seal)

Surety's Name and Corporate Seal (Seal)

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

DESIGN PROFESSIONALS

Name	Address	Area of Responsibility	% of Total Contract

END OF SECTION

SECTION 00433

BID SUBMITTAL CHECKLIST

Bidder confirms that the following documents are fully completed, included in and made part of its Bid.

- 00401 Bid Form
- 00431 Bid Security Form
- OR
- Required Bid security in the form of _____

Supplements

- 00432 Proposed Subcontractors Form
- Items required by 00440 Information, Schedules and Data
- 00441 Proposed Suppliers Form
- 00450 Bidder's Representations and Certifications including required submittals
- 00451 Contractor's Qualifications
- 00452 Non-collusion Affidavit
- If a foreign corporation, certificate from the Secretary of State of the Commonwealth of Massachusetts that the corporation has complied with requirements of section 15.03 of subdivision A of Part 15 of chapter 156D and the date of compliance, and further has filed all annual reports required by section 16.22 of subdivision B of Part 16 of said chapter 156
- Certificate of Good Standing with respect to all returns due and taxes from the Commonwealth of Massachusetts Department of Revenue
- One hardcopy, signed original (with original Bid security) has been submitted to the Owner in accordance with Section 00200

CONFIRMED BY BIDDER ON:
By:
<i>Authorized person per Bid Form</i>

END OF SECTION

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SECTION 00440

INFORMATION, SCHEDULES AND DATA

INSURANCE AND BONDS

Submit evidence of Bidder's ability to comply with specified insurance and bonding requirements including names of insurance companies and sureties.

WORK PLAN

Submit a narrative work plan describing the Bidder's approach to the successful execution of the Work to accommodate the proposed Project Schedule. Allow for review of submittals, coordination, and development of detailed sequencing, and compliance with special requirements.

PROJECT MANAGEMENT PLAN

Submit a Project Management Plan that describes:

- how schedule progress will be measured and tracked;
- how the Schedule of Values and cash flow will be determined and how progress for payment will be determined; and
- how documents will be controlled to assure that the appropriate revision is used in design, procurement, and construction/installation.

TECHNICAL DATA

- Submit catalog/manufacturer information, product specifications and cut sheets for each proposed component.

CONSUMABLES, SPARE PARTS AND SPECIAL TOOLS

Submit a complete list of recommended consumables, spare parts and special tools and pricing for the equipment to be furnished and installed by Contractor f.o.b. Site, exclusive of sales tax. The recommended consumables, spare parts and special tools listed may be purchased at Owner's option and are not included in the Bid Prices.

END OF SECTION

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SECTION 00441

PROPOSED SUPPLIERS FORM

The following Suppliers are proposed to furnish the identified products, material and equipment to be incorporated into the Work. Attach additional sheets as necessary. **Meter manufacturer must be identified and shall have manufactured meters for at least 20 years or must comply with requirements in Section 02501.**

Name	Address	Product, Material, Equipment

END OF SECTION

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SECTION 00450

BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

The undersigned, under the penalties of perjury, represents and certifies the following which is made a condition of the Bid.

1.01 Bidder's Representations

- A. Bidder has examined and carefully studied the Bidding Documents and other related data identified in the Bidding Documents.
- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Section 00805 of the Additional Supplementary Conditions Paragraph 4.02 as containing reliable "technical data", and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Section 00805 of the Additional Supplementary Conditions Paragraph 4.06 as containing reliable "technical data".
- E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

- F. Based on the information and observations referred to in Paragraph E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of the Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which the Bid is submitted.

1.02 Bidder's Certifications

- A. The Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid and has not solicited or induced any individual or entity to refrain from bidding.
- C. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish Bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

- D. Bidder will comply with the requirements of the Equal Employment Opportunity, Anti-discrimination, and Affirmative Action Program provisions in the Contract Documents, and if Bidder is awarded a Contract, it shall incorporate these provisions into all subcontracts and Purchase Orders so that such provisions will be binding upon each Subcontractor or Supplier.
- E. Bidder will comply with the requirements of the Safety and Health provisions in the Contract Documents, and if Bidder is awarded a Contract, it shall incorporate these provisions into all subcontracts and Purchase Orders so that such provisions will be binding upon each Subcontractor or Supplier.

1.03 Bidder's Certifications Required by Massachusetts General Law (MGL)

- A. The Bid is in all respects bona fide, fair and made without collusion or fraud with any other person. "Person" here means any natural person, joint venture, partnership, corporation or other business or legal entity.
- B. Bidder has submitted a certificate from the Secretary of State of the Commonwealth of Massachusetts that the corporation has complied with requirements of Section 15.03 of subdivision A of Part 15 of MGL Chapter 156D and the date of compliance, and further has filed all annual reports required by Section 16.22 of subdivision B of Part 16 of said Chapter 156D if Bidder is a foreign corporation. Bidder certifies it will provide such certificate for each Subcontractor that is a foreign corporation if it receives a Notice of Award.
- C. Bidder has submitted a Certificate of Good Standing with respect to all returns due and taxes from the Commonwealth of Massachusetts Department of Revenue certifying Bidder has complied with all laws relating to taxes, reporting of employees and contractors, and withholding and remitting of child support. Bidder certifies it will provide such certificate for each Subcontractor if it receives a Notice of Award.
- D. Bidder certifies that if awarded the Contract, the following will be submitted prior to execution of the Agreement in accordance with MGL Chapter 30, Section 39R *Definitions; contract provisions; management and financial statements; enforcement*.
- A statement by management on internal accounting controls;
 - A statement prepared by an independent certified public accountant regarding management's statement; and
 - An audited financial statement for the most recent completed fiscal year.

- E. Bidder certifies that if awarded the Contract, any Work involving the removal, containment, or encapsulation of asbestos or material containing asbestos will only be performed by a licensed contractor in accordance with MGL Chapter 149, Section 6BA.
- F. Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work and further certifies that all employees to be employed at the Work Site will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins Work and if Bidder is awarded a Contract, shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.
- G. Bidder is not presently debarred from bidding on or entering into a public contract with the Commonwealth of Massachusetts under the provisions of MGL Chapter 29, Section 29F, or any other applicable debarment provisions of any other chapter of the MGL or any rule or regulations promulgated thereunder; and is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.
- H. Bidder will comply with all laws of the Commonwealth of Massachusetts relating to unemployment contributions and payments in lieu of contributions pursuant to MGL Chapter 151A, Section 19A, as amended.

SUBMITTED ON:
By:
<i>Authorized person per Bid Form</i>

END OF SECTION

SECTION 00451

CONTRACTOR'S QUALIFICATIONS

The following data, statements of experience, personnel, equipment and general qualifications of the Bidder are submitted as a part of the Bid and the Bidder represents and guarantees the truthfulness and accuracy thereof and **its ability to meet the qualifications requirements specified forth in the General Requirements.** Attach additional sheets as necessary properly cross referenced.

- A. Bidder's organization is a _____
 (entity type) and has been in business continuously from the year _____.
- B. Bidder's organization has had experience in construction comparable to that required by the Contract Documents as a prime contractor for _____ years and as a subcontractor for _____ years.
- C. Following is a list of **at least 3 projects** that the Bidder's organization has completed for **public utilities in the Commonwealth of Massachusetts within the last 5 years, each with a contract value of \$1 million dollars or greater and a scope of work which includes the replacement of at least 1,000 water meters.** Projects shall be similar in type, character and magnitude to that required by the Contract.

Client/Owner Name/Address	Project Name/Location	CURRENT Contact Name, Phone, Email	Time Period

Client/Owner Name/Address	Project Name/Location	CURRENT Contact Name, Phone, Email	Time Period

E. The following supervisory personnel are currently employed by the Bidder and available for assignment to the Project (project manager, superintendents, principal foremen and engineers).

Name	Title	Years of Experience

Attach detailed resumes of qualifications, previous employers and experience for each.

F. Following is a list of all projects Bidder has undertaken in the last 5 years which have resulted in partial or final settlement of the contract by arbitration or litigation.

Name of Client and Project	Contact Name/ Telephone No.	Original Contract Amount	Total Claims	Arbitrated or Litigated Amount of Settlement of Claims

G. Following is a list of safety citations issued to the Bidder over the last 5 years.

Name of Client and Project	Contact Name/ Telephone No.	Type of Citation	Issued by

H. Following is a list of labor disputes the Bidder has been the subject of, or otherwise been involved in, during the last 5 years. For these purposes, "labor disputes" shall include picketing or any other activity which disrupted or delayed the work. Attach additional sheets as necessary.

Name and Location of the Project	
Nature of the Dispute	
Duration and dates during which the dispute took place	
How the dispute was resolved	
Name and Location of the Project	
Nature of the Dispute	
Duration and dates during which the dispute took place	
How the dispute was resolved	

END OF SECTION

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SECTION 00452

NON-COLLUSION AFFIDAVIT

_____, being duly sworn, depose and, under the penalty of perjury, say that the following is true:

1. I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on the behalf of my firm.
2. The price(s) and amount of this Bid have been arrived at independently, without collusion, consultation, communication, or agreement for the purpose of restricting competition with any other contractor, competitor, Bidder, or potential Bidder.
3. Unless otherwise required by law, neither the price(s) nor the amount of this Bid have been disclosed to any other firm or person who is a Bidder, competitor, or potential Bidder on the Project, and will not be so disclosed either directly or indirectly prior to Bid opening.
4. No attempt has been made or will be made to solicit, cause, or induce any firm, partnership, corporation, or person to submit or not submit a Bid on this Project, or to submit a Bid higher than the Bid of this firm, or submit an intentionally high or noncompetitive Bid or other form of complementary Bid, or for the purpose of restricting competition.
5. The Bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary Bid.
6. My firm has not offered or entered into a subcontracting agreement regarding the purchase of materials or services from any firm or person, or offered, promised, or paid cash or anything of value to any firm or person, whether in connection with this or any other Project, in consideration for an agreement or promise by any firm or person to refrain from proposing or to submit a complementary Bid on the Project.
7. My firm has not accepted nor been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary Bid or agreeing to do so, on the Project.

8. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval, or submission of my firm's Bid on the Project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act, or other conduct inconsistent with any of the statements and representations made in this affidavit.

Company Name

Signature

Company Position

Date: _____

Attest: _____

Date: _____

END OF SECTION

SECTION 00505

SAMPLE NOTICE OF INTENT TO AWARD

Date: _____

Project: _____

Owner: _____

Owner's Contract No.: _____

Contract: _____

Engineer's Project No.: _____

Bidder: _____

Bidder's Address: _____

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder and it is intended that a Contract for _____ be awarded to you subject to required reviews and approvals.

Subject to the above, a formal Notice of Award will be sent which will require you to comply with certain conditions within 10 days of the date you receive the Notice of Award, including, but not limited to the following.

1. Delivering the Contract security (Bonds) as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5);
2. Delivering the insurance certificates indicating coverages as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5);
3. Delivering the following completed and executed certifications and documents:
 - a. Pursuant to MGL Chapter 30, Section 39R *Definitions; contract provisions; management and financial statements; enforcement*:
 - A statement by management on internal accounting controls;
 - A statement prepared by an independent certified public accountant regarding management's statement; and
 - An audited financial statement for the most recent completed fiscal year.
 - b. From each Subcontractor:
 - Certificate of Good Standing from the Department of Revenue with respect to all returns due and taxes per Section 00210.
 - Certification from the Secretary of State for foreign corporations per Section 00210.

4. Other conditions precedent:

LIST OTHERS IF ANY

After you comply with the conditions of the Notice of Award and required reviews and approvals are obtained, Owner will thereafter deliver the conformed Contract Documents for execution.

Owner
By: _____
Authorized Signature

Title

Copy to Engineer

SECTION 00510

SAMPLE NOTICE OF AWARD

Date: _____

Project: _____

Owner: _____

Owner's Contract No.: _____

Contract: _____

Engineer's Project No.: _____

Bidder: _____

Bidder's Address: *[send Notice of Award Certified Mail, Return Receipt Requested]*

You are notified that your Bid dated [_____] for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for *[Indicate total Work, alternates, or sections of Work awarded]* subject to the following conditions being met and subject to required reviews and approvals.

The Contract Price of your Contract is _____ Dollars (\$_____).

[Insert appropriate data if unit prices are used. Change language for cost-plus contracts.]

You must comply with the following conditions precedent **within 10 days** of the date you receive this Notice of Award.

1. Deliver the Contract security (Bonds) as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5).
2. Deliver the insurance certificates indicating coverages as specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions (Articles 2 and 5).
3. Deliver the following completed and executed certifications and documents.
 - a. Pursuant to MGL Chapter 30, Section 39R *Definitions; contract provisions; management and financial statements; enforcement* per Section 00210:
 - A statement by management on internal accounting controls (sample attached);
 - A statement prepared by an independent certified public accountant regarding management's statement (sample attached); and
 - An audited financial statement for the most recent completed fiscal year.
 - b. From each Subcontractor per Section 00210:

- Certificate of Good Standing from the Department of Revenue with respect to all returns due and taxes
- Certification from the Secretary of State for foreign corporations

4. Other conditions precedent:

LIST OTHERS IF ANY

Failure to comply with the above conditions within the time specified will entitle the Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

After confirming that you have complied with the above conditions *and required approvals are obtained,* Owner will deliver the conformed Contract Documents for execution.

Owner
By: _____
Authorized Signature

Title

Copy to Engineer

**SAMPLE LETTER FROM CONTRACTOR REGARDING ACCOUNTING CONTROLS
Pursuant to MGL Chapter 30, Section 39R**

TO BE SUBMITTED ON CONTRACTOR'S LETTERHEAD

DATE

City of Marlborough – Department of Public Works
John Ghiloni, Commissioner
135 Neil Street
Marlborough MA 01752

RE: [INSERT CONTRACT #/PROJECT # AND NAME]

Dear Mr. Ghiloni:

This letter is being submitted pursuant to MGL Chapter 30 §39R(c). Please be advised that our firm has a system of internal accounting controls which assure that:

- (1) transactions are executed in accordance with management's general and specific authorization;
- (2) transactions are recorded as necessary, to permit preparation of financial statements in conformity with generally accepted accounting principles, and 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.

Sincerely,

[Name and title of authorized representative of Contractor]

**SAMPLE LETTER FROM CPA REGARDING CONTRACTOR ACCOUNTING CONTROLS
Pursuant to MGL Chapter 30, Section 39R**

TO BE SUBMITTED ON CPA'S LETTERHEAD

DATE

City of Marlborough – Department of Public Works
John Ghiloni, Commissioner
135 Neil Street
Marlborough MA 01752

RE: [INSERT CONTRACT #/PROJECT # AND NAME]

Dear Mr. Ghiloni:

Please be advised that we have reviewed the Statement of Internal Accounting Controls prepared by [NAME OF CONTRACTOR], in connection with the above-captioned Project as required under MGL Chapter 30, § 39R. In our opinion, representations of management are consistent with our evaluations of the system of internal accounting controls and such representations are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to [NAME OF CONTRACTOR]'s financial statements.

Sincerely,

_____, CPA
[Name]



Section 00520 Owner-Contractor Agreement

THIS AGREEMENT made on this _____ day of _____ 20__ by and between the **INSERT NAME OF CONTRACTOR**, a corporation, partnership, individual organized under the laws of **INSERT STATE** and having a usual place of business at **INSERT ADDRESS** (hereinafter called the "Contractor"), and the City of Marlborough as the awarding authority, a municipal corporation within said County of Middlesex and having a usual place of business at 140 Main Street, Marlborough, MA 01752, (hereinafter called the "City" or "Owner") as represented by the MAYOR who signs these presents in his official capacity acting for and in behalf of the City and who incurs no liability in his individual capacity.

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

Article 1. Scope of Work: The Contractor shall perform all Work required by the Contract Documents for **Replacement of Commercial Water Meters and Transmitters** (hereinafter called the "Project") in Marlborough, Massachusetts, and to accomplish any and all Work incidental thereto in accordance with the Contract Documents attached hereto, and incorporated herein as fully part of this Agreement as prepared by the Engineer, Woodard and Curran, Inc.

Article 2. Time of Completion:

2.1 The Contractor shall commence Work under the Contract on the date specified in the written Notice to Proceed issued by the City ("commencement of Contract Time") and shall bring the Work to Substantial Completion within 210 calendar days of said date and shall be completed and ready for final payment within 270 calendar days from said date, in accordance with Paragraph 14.07 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

2.2 Damages for delays in the performance of the Work shall be as set forth in Section 00540, Agreement Supplements.

Article 3. Contract Price: The Owner shall pay the Contractor, in current funds, for the Work specified in the Contract Documents, a sum of money as follows:

_____ Dollars (_____)

Article 4. Contracting Officers (MGL c. 43, §29 & c. 44, §31C): Wherever used in this Agreement, the term "Contracting Officers" shall mean the City Officials so designated below, or the individual duly appointed by him/her for the performance of any of his/her functions or responsibilities under this Agreement. The Work performed hereunder shall be carried out under the direction and subject to the approval and acceptance of the Mayor, the Department Head and the City Auditor (hereinafter called the Contracting Officers).

Article 5. The Contract Documents:

5.1 The following, together with this Agreement, form the Contract and all are as fully apart of the Contract as if attached to this Agreement or repeated herein: Contract Forms listed in 00605, Conditions of the Contract (Section 00720 and Additional Supplementary Conditions listed in Section 00801), and General Requirements, Specifications and Drawings as enumerated in the Table of Contents, the Drawings as enumerated in the List of Contract Drawings, and the following which may be delivered or

issued after the effective date of the Agreement and are not attached hereto: Notice to Proceed, Work Change Directives, Change Orders. Terms used in this Agreement which are defined in the Conditions of the Contract shall have the meanings designated in those Conditions. There are no Contract Documents other than those listed above. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

5.2 The Contract Documents are to be read collectively and complementary to one another; any requirement under one shall be as binding as if required by all. In the event of any conflict or inconsistency between the provisions of this Agreement and any of the other Contract Documents, the provisions of this Agreement shall prevail. In the event of any conflict or inconsistency between this Agreement, the Contract Documents and any applicable state law, the applicable statutory provisions shall prevail.

Article 6. Alternates: NOT USED

Article 7. Notice:

7.1 Wherever in this Agreement the City is to give or receive a notice, **Michele Mochnoc Higgins, Assistant Commissioner, Utilities, Department of Public Works, 135 Neil Street– Administration Building, Administration Offices-2nd Floor, Marlborough, MA 01752** shall be the City's agent for such purpose.

7.2 Wherever in this Agreement the Contractor is to give or receive a notice, **[insert name & title]** shall be the Contractor's agent for such purpose.

Article 8. REAP Certification: Pursuant to M.G.L. c.62c §49a, the individual signing this Agreement on behalf of the Contractor, hereby certifies, under the penalties of perjury, that to the best of their knowledge and belief the Contractor has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholdings and remitting child support.

Article 9. Unemployment Contribution Certification: Pursuant to M.G.L. c.151A §19A, the individual signing this Agreement on behalf of the Contractor, hereby certifies, under the penalties of perjury that, to the best of their knowledge and belief, the Contractor has complied with all laws of the Commonwealth relating to contributions and payments in lieu of contributions.

Article 10. Worker Documentation Certification: In accordance with the Federal Immigration and Nationality Act, 8 USC §§1324a and 1324b and M.G.L. c. 149 §19C, the individual signing this Agreement on behalf of the Contractor certifies under the penalties of perjury that the Contractor shall not knowingly use undocumented workers in connection with the performance of this Contract; that pursuant to federal requirements, the Contractor shall verify the immigration status of all workers assigned to such Contract without engaging in unlawful discrimination; and that it shall not knowingly or recklessly alter, falsify, or accept altered or falsified documents from any such worker(s). The Contractor understands and agrees that breach of any of these terms during the Contract period may be regarded as a material breach, subjecting the Contractor to sanctions, including but not limited to monetary penalties, withholding of payments, contract suspension or termination.

Article 11. Conflict of Interest: The Contractor covenants, that (1) presently, there is no financial interest and shall not acquire any such interest direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement or which would violate M.G.L. c. 268A, as amended; (2) in the performance of this Contract, no person having any such interest shall be employed by the Contractor or engaged as a Subcontractor by the Contractor; and (3) no partner or employee of the firm is related by blood or marriage to any Board Member or employee of the Awarding Authority.

Article 12. Validations: This Contract will not be valid until signed by the Mayor.

IN WITNESS WHEREOF, the Parties hereto have caused this instrument to be executed under seal the day and year first above written.

FOR THE CONTRACTOR
BY:

FOR THE CITY OF MARLBOROUGH
BY:

By: _____
Title: _____
Date: _____

By: Arthur G. Vigeant
Title: Mayor
Date: _____

[This name for the contractor must match the name on the Certificate of Vote form, if corporation.]

ATTEST:

By: Lisa M. Thomas /Steven W. Kerrigan
Title: City Clerk/Asst. City Clerk

ATTEST:

DEPARTMENT HEAD:

By: _____
Title: _____

By: John Ghiloni
Title: Commissioner

CERTIFICATION PURSUANT TO c. 44, §31C AS TO SUFFICIENCY OF FUNDS AND AUTHORIZATION FOR MAYOR TO EXECUTE CONTRACT:

By: Diane Smith
Title: City Auditor
Purchase Req./P.O.#: _____

CERTIFICATION AS TO PROCUREMENT LAW:

By: Beverly J. Sleeper, MCPPO
Title: Chief Procurement Officer
Or Designated Procurement Officer

Procurement Law: _____
Contract/File #: _____

APPROVED AS TO FORM BY LEGAL COUNSEL:

Donald V. Rider, Jr.
Title: City Solicitor
OR

Cynthia Panagore Griffin
Title: Assistant City Solicitor

CERTIFICATE OF VOTE OF AUTHORIZATION

At a duly authorized meeting of the Board of Directors of the:

_____ held on _____
(Name of Corporation) (Date)

at which all the Directors were present or waived notice, it was VOTED That,

_____ (Name) _____ (Officer)

of this company be and hereby is authorized to execute contract and bonds in the name and behalf of said company, and affix its corporate seal thereto, and such execution of any contract or obligation in this company's name on its behalf by such

_____ of this company, shall be valid and binding upon this company.
(Officer)

I hereby certify that I am the Clerk of the _____ that
_____ is the duly elected

_____ of said company, and that the
(Officer)

above vote has not been amended or rescinded and remains in full force and effect as of the date of this contract.

A true copy of the record,

ATTEST _____
Clerk

Place of Business _____

Corporate Seal

On this ____ day of 201__, before me, the undersigned Notary Public, personally appeared

_____, duly designated by the board of directors and proved to me,

through satisfactory evidence of identification, which was _____, that s/he is the person whose name is signed on the foregoing documents, and acknowledged to me that s/he signed it voluntarily for its stated purpose and that it was her/his free act and deed.

Notary Public
My Commission Expires:

If a corporation, complete below or attach to each signed copy of a contract a notarized copy of vote of corporation authorizing the signatory to sign this contract. If attesting clerk is same as individual executing contract, have signature notarized above.

SECTION 00540

AGREEMENT FORM SUPPLEMENTS

The following items supplement the Agreement and are incorporated into the Agreement and made a part thereof. Terms used herein will have the meanings stated in the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

1.01 Engineer

The Project has been designed by Woodard & Curran, Inc. (Engineer) which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

1.02 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence and that Owner will suffer financial loss if the Work is not completed within the times specified in Article 2 of the Agreement, plus any extensions thereof allowed in accordance with Article 12 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **\$1,000** for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner **\$1,000** for each day that expires after the time specified in Article 2 of the Agreement for completion and readiness for final payment until the Work is completed and ready for final payment.

1.03 Actual Damages

- A. Contractor's failure to record final readings from stored water meters removed or from stored meter registers, may result in the Contractor being responsible for payment of customers' final water and sewer bill.
- B. Contractor shall be liable for all costs incurred by the Owner to resolve emergencies including, but not limited to, overtime costs and material costs for Contractor's failure to provide emergency response in accordance with Section 02501.

1.04 Unit Prices

- A. Unit Prices have been computed in accordance with Paragraph 11.03.A of the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any.
- B. The prices for Unit Price Work as of the Effective Date of the Agreement are based on estimated quantities as set forth in the Bid Form attached hereto. As provided in Paragraph 11.03 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, estimated quantities are not guaranteed (except for those estimated by the Contractor), and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any. Final payment for unit price items will be based on actual quantities determined and based on the unit prices stated in the Bid Form.

1.05 Payment Procedures

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any. Applications for Payment will be processed by Engineer as provided in the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, and the General Requirements.
- B. Progress Payments: Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as provided in Paragraph 1.04.B.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, (and in the case of Unit Price Work based on the number of units completed).
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any, and additional retainage allowed by Laws and Regulations.

- a. Progress Payments of 95 percent for Work completed (with the balance of 5 percent being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance of 5 percent being retainage).
2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 99 percent of the Work completed (with the balance of 1 percent being retainage), less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any, and less the Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected (Punch List) attached to the certificate of Substantial Completion and subject to Paragraph 14.04 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any.

However, retainage for items planted in the ground shall remain at 5 percent of the cost of such items until Final Payment per Massachusetts General Laws Chapter 30, Section 39G.

- C. Final Payment: Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

1.06 Interest

- A. All moneys not paid when due as provided in Article 14 of the General and Supplementary Conditions, and Additional Supplementary Conditions, if any, shall bear interest at the rate three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston per Massachusetts General Laws Chapter 30, Section 39G. Interest shall not be accrued on retainage.

1.07 Dispute Resolution

- A. The laws of the Commonwealth of Massachusetts shall govern all rights and duties under the Agreement, including without limitation the validity of the Agreement. Any actions arising out of the Agreement shall be brought and maintained in a State or Federal Court in Massachusetts which shall have exclusive jurisdiction thereof. The Owner may agree to voluntary mediation or arbitration of any contract dispute and will share the costs of such mediation or arbitration as set forth in the Standard General and Supplementary Conditions. No legal or equitable rights of the parties shall be limited by this paragraph.

1.08 Contractor's Representations and Certifications

- A. In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 2. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 in Section 00805 of the Additional Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 in Section 00805 of the Additional Supplementary Conditions as containing reliable "technical data".

5. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
 6. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
 7. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
 8. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 9. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- B. The Contractor certifies, under the penalties of perjury, that:
1. Contractor has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph:
 - a. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;

- b. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - c. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - d. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.
2. Pursuant to Article 8 of the Agreement, Contractor has provided for itself and each Subcontractor, a Certificate of Good Standing from the Department of Revenue with respect to all returns due and taxes;
3. If a foreign corporation, Contractor has provided for itself and each Subcontractor, a certificate of the state secretary stating that the corporation has complied with requirements of Massachusetts General Laws Chapter 156D, Part 15, Section 15.03 of subdivision A and the date of compliance, and further has filed all annual reports required by Section 16.22 of subdivision B of Part 16 of said Chapter 156D, pursuant to Massachusetts General Laws Chapter 30, Section 39L;
4. Contractor is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work and further certifies that all employees to be employed at the Work Site will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins Work and shall furnish documentation of successful completion of said course with the first certified payroll report for each employee;
5. Contractor is not presently debarred from entering into a public contract Commonwealth of Massachusetts under the provisions of Massachusetts General Laws Chapter 29, Section 29F, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulations promulgated thereunder; and is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

6. Pursuant to Massachusetts General Laws Chapter 30, Section 39R, Contractor has provided a statement by management on internal accounting controls, a statement prepared by an independent certified public accountant regarding management's statement; and an audited financial statement for the most recent completed fiscal year;
7. Contractor will incorporate the applicable provisions of the Contract Documents into all subcontracts and Purchase Orders so that such provisions will be binding upon each Subcontractor or Supplier.

1.09 Miscellaneous

- A. Terms used in this Agreement will have the meanings stated in the Standard General and Supplementary Conditions, and Additional Supplementary Conditions, if any.
- B. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- C. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
- D. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

1.10 Attachments to Agreement

The following items included in this Section are attached to and are incorporated into the Agreement and made a part thereof.

- **Items submitted with Bid**
 - Bid Form (00401)
 - Proposed Subcontractors Form (00432)
 - Information, Schedules and Data (00440)
 - Proposed Suppliers Form (00441)
 - Bidder's Qualifications (00451)

- 00611 Payment Bond
- 00612 Performance Bond
- Insurance Certificates

- **Certifications**
 - Certificate from the Secretary of State for foreign corporations
 - Certificate of Good Standing from MA Department of Revenue with respect to all returns due and taxes
 - An audited financial statement for the most recent completed fiscal year
 - A statement by management on internal accounting controls
 - A statement prepared by an independent certified public accountant regarding management's statement
 - Subcontractor Certificates of Good Standing from MA Department of Revenue with respect to all returns due and taxes
 - Subcontractor certification from the Secretary of State for foreign corporations

END OF SECTION

SAMPLE NOTICE TO PROCEED (C-00550)

Date: _____

Project: _____

Owner: _____

Owner's Contract No.: _____

Contract: _____

Engineer's Project No.: _____

Contractor: _____

Contractor's Address: [send Certified Mail, Return Receipt Requested]

You are notified that the Contract Times under the above Contract will commence to run on _____.
On or before that date, you are to start performing your obligations under the Contract Documents
* for the following portion(s) of the Work:
Describe the limits of the Work covered

A Notice to Proceed for the remaining Work will follow.

In accordance with Article 4 of the Agreement, the date of Substantial Completion is _____, and
the date of readiness for final payment is _____ [OR the number of days to achieve Substantial
Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before you may start any Work at the Site, Paragraph 2.01.B of the Standard General and
Supplementary Conditions, and additional Supplementary Conditions if any, provide that you and
Owner must each deliver to the other (with copies to Engineer and other identified additional
insureds and loss payees) certificates of insurance which each is required to purchase and maintain
in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must:

[add other requirements].

_____	Owner: _____
_____	Given by: _____
_____	Authorized Signature: _____
_____	Title: _____
_____	Date: _____

Copy to Engineer

END OF SECTION

SECTION 00605

PROJECT FORMS

The following forms are included in this Section and shall be used for the Project as specified in the General and Supplementary Conditions, Additional Supplementary Conditions if any, and the General Requirements. Completed and execution versions of these forms used during the Project shall be incorporated into the Agreement and made a part thereof.

Payment Bonds (Form C-00611)
Performance Bonds (Form C-00612)
Application for Payment (Form C-00621)
Notice of Substantial Completion (Form C-00628.A)
Certificate of Substantial Completion (Form C-00628.B)
Certificate of Completion (Form C-00629)
Request for Interpretation/Information (Form C-00635)
Field Order (Form C-00636)
Work Change Directive (Form C-00637)
Change Request (Form C-00638)
Change Order (Form C-00639)

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PAYMENT BOND (Form C-00611)

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or

(2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond

shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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PERFORMANCE BOND (Form C00612)

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)

Contractor's Name and Corporate Seal

(seal)

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____

Signature

Attest: _____

Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of

the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within

two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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	Application Period:	Application Date:
To (Owner):	From (Contractor):	Via (Engineer):
Project:	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:

**Application For Payment
Change Order Summary**

Approved Change Orders			
Number	Additions	Deductions	
TOTALS			
NET CHANGE BY			
CHANGE ORDERS			

	1. ORIGINAL CONTRACT PRICE..... \$ _____
	2. Net change by Change Orders..... \$ _____
	3. Current Contract Price (Line 1 ± 2)..... \$ _____
	4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate)..... \$ _____
	5. RETAINAGE:
	a. X _____ Work Completed..... \$ _____
	b. X _____ Stored Material..... \$ _____
	c. Total Retainage (Line 5a + Line 5b)..... \$ _____
	6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)..... \$ _____
	7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)..... \$ _____
	8. AMOUNT DUE THIS APPLICATION..... \$ _____
	9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above)..... \$ _____

Contractor's Certification

The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By: _____ Date: _____

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ (Engineer) _____ (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ Funding Agency (if applicable) _____ (Date)

Approved by: _____

Notice of Substantial Completion (C-00628.A)

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		

This Notice of Substantial Completion applies to:

The following Systems, Equipment or specified portions
 : All Work under the Contract Documents
 :

_____ Date of Substantial Completion for above

The following documents are attached to and made part of this Notice.

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Accepted by Contractor	Date
Accepted by Owner	Date

This page intentionally left blank

Certificate of Substantial Completion (Form C-00628.B)

Project:

Owner:

Owner's Contract No.:

Contract:

Engineer's Project No.:

This [tentative] [definitive] Certificate of Substantial Completion applies to:

- All Work under the Contract Documents: The following specified portions of the Work:

_____ Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

- Amended Responsibilities Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

Certificate of Completion (Form C-00629)

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		

This Certificate of Completion applies to:

- All Work under the Contract Documents: The following specified portions:

Date of final Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner and Contractor, Contractor has completed all corrections to the satisfaction of Owner, delivered all required documentation, and the Project, or portion designated above, is found to be complete. The Date of Completion of the Project or portion thereof designated above is hereby declared.

Contractor may make application for final payment.

The following documents are attached to and made part of this Certificate:

Final Application for Payment

This Certificate does not constitute a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Only the **making and acceptance of final payment** will constitute:

1. A waiver of all claims by Owner against Contractor, except claims arising from any unsettled liens, from Defective Construction appearing after final inspection; from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. A waiver of all claims by Contractor against Owner other than those previously timely made in writing and still unsettled.

Accepted by Contractor

Date

Accepted by Owner

Date

This page intentionally left blank

**REQUEST FOR
INTERPRETATION/INFORMATION
(Form C-00635)**

RFI #: _____ Attachment

To: _____

From: _____

Attn: _____

Issue Date: _____

Project: _____

Required Reply Date: _____

DISTRIBUTION:

Contractor

Owner

Engineer

REFERENCES:

- Specifications: _____ Section: _____ Page/Paragraph: _____
- Drawings: _____ Issue Date: _____ Detail/Sections: _____
- Work Area: _____ Grid/Level: _____

RFI DESCRIPTION:

From: _____

Tel No: _____ Fax: No: _____

Initial: _____

E-mail: _____

RFI REPLY:

Possible Cost Effect Yes: No:

Possible Schedule Effect Yes: No:

From: _____

Reply Date: _____ xc: _____

Initial: _____

This page intentionally left blank

Field Order (C-00636)

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

Attention:

You are hereby directed to promptly execute this Field Order issued in accordance with General Conditions Paragraph 9.04.A, for minor changes in the Work without changes in Contract Price or Contract Times. If you consider that a change in Contract Price or Contract Times is required, please notify the Engineer immediately and before proceeding with this Work.

Reference: _____
(Specification Section(s)) (Drawing(s) / Detail(s))

Description:

Attachments:

Engineer:

Receipt Acknowledged by Contractor:	Date:
--	-------

Copy to Owner

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CHANGE REQUEST (FORM C-00638) (Design Changes/Deviations/Substitutions)

CR NO.
DATE

Project:

Request Initiated by:
 Contractor
 Owner
 Engineer

Impact to Contract Price expected
 Impact to Contract Time expected
Change Orders will be processed separately

Request submitted as (format):

Description of Change (documentation attached)

Reason for Change

Response: This constitutes a Written Amendment to the Agreement.

Review of the proposed change/deviation/substitution by Engineer is for general compatibility with the design concept of the Project. This review does not extend to means, methods, sequences, or procedures of construction or to issues of safety incident thereto. This review shall not relieve the Contractor from responsibility for full compliance with the requirements specified and to determine and verify the information contained therein.

<p>Recommended By Engineer for Acceptance (subject to above comments if any)</p> <p><input type="checkbox"/> recommended for processing and approval under a separate Change Order</p> <p>NAME:</p> <p><i>Signature</i> <i>Date</i></p>	<p><input type="checkbox"/> Approved by Owner (no schedule or cost impact)</p> <p><input type="checkbox"/> Acknowledged by Owner – to be processed and approved under a separate Change Order</p> <p>NAME:</p> <p><i>Signature</i> <i>Date</i></p>
<p>Approved by Contractor</p> <p><input type="checkbox"/> Change Order to be requested</p> <p>NAME:</p> <p><i>Signature</i> <i>Date</i></p>	

This page intentionally left blank

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments (list documents supporting change):

CHANGE IN CONTRACT PRICE:

Original Contract Price:

\$ _____

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:

\$ _____

Contract Price prior to this Change Order:

\$ _____

[Increase] [Decrease] of this Change Order:

\$ _____

Contract Price incorporating this Change Order:

\$ _____

CHANGE IN CONTRACT TIMES:

Original Contract Times: Working days Calendar days

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:

Substantial completion (days): _____

Ready for final payment (days): _____

Contract Times prior to this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

[Increase] [Decrease] of this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

Contract Times with all approved Change Orders:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

RECOMMENDED:

By: _____
Engineer (Authorized Signature)

Date: _____

Approved by Funding Agency (if applicable): _____

Date: _____

ACCEPTED:

By: _____
Owner (Authorized Signature)

Date: _____

Approved by Funding Agency (if applicable): _____

Date: _____

ACCEPTED:

By: _____
Contractor (Authorized Signature)

Date: _____

Approved by Funding Agency (if applicable): _____

Date: _____

Pursuant to MGL c.44, s31C, I certify that an appropriation has been made in the total amount of the Change Order

Owner's Auditor/Accountant (Name)

Date: _____

Pursuant to MGL c.30, s39I, reasons for deviation are as stated on Page 1. The specified deviation(s) does not materially injure the Project as a whole, the Work is of the same cost and quality or an equitable adjustment has been agreed upon, and the deviation is in the best interest of the Owner.

Owner

Date: _____

Change Order

Instructions

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

SECTION 00720
STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

WITH STANDARD SUPPLEMENTARY CONDITIONS
prepared by Woodard & Curran on behalf of and as approved by Owner
(highlighted within the text of this Section)

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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SECTION 00720
STANDARD GENERAL CONDITIONS OF THE
CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed. May also be referred to as “Proposal” which may be used interchangeably and shall have the same meaning.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer’s written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor and complement the Specifications. Shop Drawings and other Contractor submittals are not Drawings as so defined. May also referred to as “Plans”, which may be used interchangeably and shall have the same meaning. Notes on Drawings are directed to Contractor unless specifically noted otherwise.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 01 of the Specifications which govern the Work of all sections of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction. See Paragraph 17.05 of these General Conditions.

25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times. May also be referred to as “Construction Schedule”, which may be used interchangeably and shall have the same meaning.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto. The Specifications are based on the guidelines of the Construction Specifications Institute (CSI) Project Resource Manual, and are directed to Contractor unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases in the Specifications.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions. Modifications made and highlighted herein (referred to as “Standard Supplementary Conditions”) and modifications and supplements included in the Additional Supplementary Conditions have been prepared by Engineer on behalf of and are as approved by Owner.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

B. Additional Terms

1. *Final Completion*—The time at which all Work is completed and ready for final payment in accordance with Paragraph 14.07 of these General Conditions.
2. *Industry Practice*—The written practices, methods, materials, supplies and equipment, as changed from time to time, that are commonly used in the industry applicable to the Project to design, construct and operate facilities and plants, or any practices, methods and acts, which in the exercise of reasonable judgment in light of the facts known at the time, could have been expected to accomplish the desired results consistent with good business practices, reliability, safety and expedition.
3. *Punch List*—a list of open items representing portions of the Work which Contractor, Engineer, Owner reasonably agree is not complete on the date of Substantial Completion or Final Completion, but which items will not significantly interfere with the safe, reliable operation and integrity of the Project or its intended use.
4. *Purchase Order*—A written agreement between Contractor and a Supplier for provision of material and equipment.
5. *Warranty Period*—the correction period after the date of Substantial Completion per Paragraph 13.07 of these General Conditions.

1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. Intent of Certain Terms or Adjectives:
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.
- C. Day:
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight. However, in limited instances the parties have agreed explicitly by context to use the terms "business day" or "working day" to further define the meaning of the term day. See also Paragraph 17.02 of these General Conditions.
- D. Defective:
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).
- E. Furnish, Install, Perform, Provide:
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. ~~When Contractor delivers the executed counterparts~~Prior to execution of the Agreement ~~to Owner~~, Contractor shall ~~also~~ deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Prior to execution of the Agreement and b~~B~~efore any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Additional Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ~~ten~~5 printed or hard copies of the ~~Drawings and Project Manual-Contract Documents~~. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the ~~sixtieth~~90th day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, unless mutually agreed otherwise, whichever date is earlier.

2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents, and the lead times for equipment and materials per the listing in subparagraph 2.05.A.4;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work, which will be confirmed in writing by Contractor at the time of submission. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work; and-
4. a complete listing of equipment and materials with lead times between placing orders and delivery, including normal allowances of time for processing and correcting Shop Drawings. All orders for long lead items shall be placed within 30 days after Effective Date of the Agreement if delivery is critical to scheduling. Failure to place orders promptly may result in full liability for liquidated damages if Contract Times are not met.

- B. *Evidence of Insurance:* In accordance with Paragraph 2.01.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records in accordance with the General Requirements.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all and comprise the entire agreement between Owner and Contractor concerning the Work. If any term or provision of any of the Contract Documents, or the application thereof to any party or circumstance shall, to any extent, be determined to be invalid or unenforceable, the remaining provisions of the Contract Documents, or the application of such term or provision to parties or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of each of the Contract Documents shall be valid and shall be enforced to the fullest extent permitted by Laws and Regulations.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies:

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
 3. Engineer's written interpretation or clarification; or-
 4. A Change Request.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Additional Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Additional Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Additional Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

- A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:
1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
 2. is of such a nature as to require a change in the Contract Documents; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. ~~*(Not Used) Engineer’s Review: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.*~~

C. Possible Price and Times Adjustments:

1. The Contract Price or the Contract Times, or both, ~~will~~may be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment;
~~or~~
c. Contractor failed to give the written notice as required by Paragraph 4.03.A,or
e.d. written notice is submitted after final payment.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated:

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.
3. Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, shall not be liable to Contractor for any Claims, losses, or damages incurred by Contractor (including but not limited to all fees and changes of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) related to Underground Facilities not shown or indicated.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Additional Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for

Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within ~~20~~5 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Additional Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner and Engineer, with copies to each additional insured and loss payee identified in the Additional Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed, complies with the requirements of Article 5, and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; ~~and~~
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle;~~;~~
 - 7. claims for damages because of bodily injury or death of any person or for damage to property of arising out of operation of Laws or Regulations; and
 - 8. claims for damages because of negligent acts, errors and omissions arising out of performing or providing professional services.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.67 inclusive, be written on an occurrence basis, include as additional insureds by endorsement (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Additional Supplementary Conditions, all of whom shall be ~~listed-included~~ as additional insureds by endorsement, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Engineer and Contractor and to each other additional insured identified in the Additional Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide) and will contain waiver provisions in accordance with Paragraph 5.07;
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and Engineer and each other additional insured identified in the Additional Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.
7. In the event general liability insurance is provided on a claims-made policy, the retroactive date of such policy shall not be later than the date of the Notice to Proceed or the Effective Date of the Agreement, whichever is earlier. For construction periods extending beyond the expiration date of an initial claims-made policy, the retroactive date of all subsequent claims-made policies shall not be later than the date of the Notice to Proceed.

C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation and related coverage:

<u>Minimum limit of liability</u>	<u>Statutory</u>
<u>Applicable Federal (e.g., Longshoreman's)</u>	<u>Statutory</u>
<u>Employer's Liability</u>	<u>\$1,000,000</u>

2. Contractor's General Liability:

\$3,000,000 per occurrence; \$3,000,000 general aggregate, including:

- Broad Form Property Damage Liability including coverage for acts of terrorism
- Completed Operations and Product Liability
- Contractual Liability
- Pollution Liability
- Independent Contractors
- Explosion, Collapse & Underground Hazards
- Personal Injury Coverage, Exclusion "C" Deleted
- Fire Legal Liability
- Pollution Liability

Excess or Umbrella Liability: \$3,000,000 per occurrence; \$3,000,000 general aggregate

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

Combined Single Limit of \$3,000,000 for bodily injury & property damage covering Contractor and any vehicles owned, hired and non-owned by the Contractor

4. Professional Liability (E&O): \$1,000,000 for each claim with an annual aggregate of at least \$2,000,000

5. Owners Protective Liability (OCIP): as may be specified in the Additional Supplementary Conditions

Any self-insured retention (not allowed for Worker's Compensation) and/or deductibles must be identified and cannot exceed \$100,000 per occurrence without the prior approval of the Owner. Contractor must provide either an audited financial statement to confirm solvency or a letter of credit guaranteeing the \$100,000 in case of loss for the duration of the Project and for the Correction Period.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. ~~Unless otherwise provided in the Supplementary Conditions, Owner~~Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. ~~Contractor shall be responsible for any (subject to such deductible amounts or self-insured retention as may be provided in the Supplementary Conditions or required by Laws and Regulations).~~ This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Additional Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, flood, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Additional Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until Work is completed~~final payment~~ is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each and any other loss payee to whom a certificate of insurance has been issued.
- B. ~~(Not used) Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of~~

~~each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.~~

- C. ~~All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by Contractor will contain provisions and endorsements specified in Paragraph 5.04.All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.~~
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work, ~~to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.~~
- E. ~~(Not used)If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Additional Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Additional Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. ~~(Not used) Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.~~
- B. ~~Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.~~

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If ~~either~~ Owner ~~or Contractor~~ has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the ~~other party~~ the Contractor in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the ~~objecting party~~ Owner shall so notify the ~~other party~~ Contractor in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. ~~Owner and Contractor shall each provide to the other Owner,~~ such additional information in respect of insurance provided as the other may reasonably request. If ~~either~~

~~partyContractor~~ does not purchase or maintain all of the bonds and insurance required ~~of such party~~ by the Contract Documents, ~~such partyContractor~~ shall notify the ~~other partyOwner~~ in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the ~~other partyOwner~~ may elect to obtain equivalent bonds or insurance to protect ~~such other party'sOwner's~~ interests at the expense of the ~~partyContractorwho was required to provide such coverage~~, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
 1. Contractor shall comply with the Equal Employment Opportunity Requirements included in the Additional Supplementary Conditions.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

D. Provision of any instructions:

- 1. will not be effective to assign to Owner, or any of Owner's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 8.09; and
- 2. will not be effective to assign to Engineer, or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and “Or-Equals”*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item, make or catalogue number, or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. *“Or-Equal” Items:* If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
 2. *Substitute Items:*
 - a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Bidding Requirements or Additional Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and ~~if the~~ Contractor has submitted a list thereof in accordance with the Bidding Requirements or Additional Supplementary Conditions (which shall be included as an attachment to the Agreement), Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
1. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Additional Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.
 2. Such agreement between Contractor and the Subcontractor or Supplier shall specifically include arbitration provisions similar to those in Article 16 and provisions required by Laws and Regulations identified in the various Additional Supplementary Conditions.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.
- D. At the Owner's option, Contractor shall defend claims in connection with any alleged infringement of such rights.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.
 - 1. Owner will provide the permits and licenses indicated in the Additional Supplementary Conditions, if any.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. See Additional Supplementary Conditions for specific requirements, if any. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor observes that the Specifications or Drawings are at variance with any Laws or Regulations, Contractor shall give Engineer prompt written notice thereof, and any necessary changes will be authorized by one of the methods set forth in Paragraph 3.04. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.
- B. If Owner is sales tax exempt, specific provisions shall be as set forth in the Additional Supplementary Conditions.

6.11 *Use of Site and Other Areas*

- A. Limitation on Use of Site and Other Areas:
 - 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation-agreement or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
 3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work, Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings and other closeout submittals will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs and safety requirements included in the Additional Supplementary Conditions, if any. ~~The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.~~
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

- 1. Shop Drawings:

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

- 2. Samples:

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures:

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1. or for errors or omissions in a Shop Drawing or Sample.

E. Resubmittal Procedures:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than 3 submittals. Engineer will record Engineer's time for reviewing subsequent submittals of Shop Drawings, samples, or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time.
3. In the event that Contractor requests a change of a previously approved item, Contractor shall reimburse Owner for Engineer's charges for its review time unless the need for such change is beyond the control of Contractor.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and in accordance with Subcontractor warranties, manufacturers and Suppliers warranties on equipment and material, and extended or special warranties and will not be defective for the correction period specified in 13.07. Owner and Engineer and ~~its~~their officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.

1. Contractor shall obtain and preserve for the benefit of the Owner:

a. manufacturers' and Suppliers' written warranties and guarantees on equipment and material incorporated into the Work;

b. written warranties and guarantees from each Subcontractor engaged in the performance of the Work; and

2. extended or special warranties.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; ~~or~~

7. any correction of defective Work by Owner; or.

8. any acceptance by Owner or any failure to do so.

D. Contractor shall prepare and execute a written general warranty and guarantee applicable to the Work reflecting the provisions of this Paragraph 6.19, Article 13 and other applicable provisions of the Contract Documents pertaining to warranties and guarantees, Subcontractor, manufacturers and Supplier warranties and guarantees, and extended or special warranties and guarantees. Contractor shall submit this written general warranty and guarantee in accordance with Article 14 and the General Requirements.

E. Provision of any warranties or guarantees:

1. will not be effective to assign to Owner, or any of Owner's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 8.09; and
2. will not be effective to assign to Engineer, or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09.

F. The warranty and guarantee provisions of this Paragraph 6.19 shall be in addition to and not in limitation of any other warranties, guarantees or remedies allowed by Law or the Contract Documents.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend (with counsel designated by the insurer accepting liability for the Claim or damage or, in lieu thereof, counsel acceptable to the Owner), and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

1. Without limiting the generality of the preceding Paragraph, the Contractor hereby specifically agrees to indemnify, defend, and hold harmless the Owner and Engineer from all such claims, losses or expenses which arise out of injuries of employees of the Contractor or any of its Subcontractors or Suppliers of any tier related to performance of the Work. It is the Owner intention that all financial risk of injuries related to the Work be borne by the Contractor, and that the Owner have no financial responsibility, direct or indirect, for any such claims.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of ~~;~~ ~~or the failure to prepare or approve~~ maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications, provided however, that if the claim, cost, loss or damage referred to in this Paragraph 6.20 results from failure of the Engineer to discover a condition, Underground Facilities or object which is underground or otherwise not reasonably observable by the Engineer, and if said failure to discover either was or should have been apparent to the Contractor in that the said condition or object is omitted from the Engineer's maps, Drawings, opinions, reports, surveys, Change Orders, designs or Specifications, then the Contractor shall be liable for indemnification of the Engineer and Owner under Paragraph 6.20 for claims, costs, losses and damages resulting from said failure to discover unless Contractor shall have notified Engineer of the existence and location of such condition or object prior to the occurrence of such claims, costs, losses and damages and in sufficient time for Engineer to have made provisions therefor.; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage ~~;~~ or

3. caused by the negligent acts, errors or omissions of any of them.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and

proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Additional Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Additional Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided ~~in the Supplementary Conditions herein~~, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Additional Supplementary Conditions.

B. The Resident Project Representative (RPR) will be Engineer's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor. The RPR shall:

1. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.

2. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

3. Liaison:

a. Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents.

b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.

c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.

4. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

5. Shop Drawings and Samples:

a. Record date of receipt of Samples and approved Shop Drawings.

b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.

6. Modifications:

a. Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer.

b. Transmit to Contractor in writing, decisions as issued by Engineer.

7. Review of Work and Rejection of Defective Work:

- a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
- b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

8. Inspections, Tests, and System Startups:

- a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

9. Records:

- a. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- b. Maintain records for use in preparing Project documentation.

10. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition or conditions that may impede the compliant operation of existing facilities on Site.

11. Payment Requests: Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of

values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

12. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

13. Completion:

- a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
- b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including “or-equal” items).
2. Exceed limitations of Engineer’s authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor’s superintendent.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor’s work unless such advice or directions are specifically required by the Contract Documents.
5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part or determine operational protocol that may affect the compliant operation of existing facilities.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to

the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

F. Engineer will have no responsibility or authority:

- 1. To order changes in construction which will result in additional costs or which will require extensions of Contract Times;

2. To suspend all or any portion of Contractor's operations;
3. To terminate all or any portion of the Work;
4. To make final acceptance of all or any portion of the Work; and
5. To operate or maintain any portion of the Work.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than ~~30~~ 14 days) after the start of the event giving rise thereto. Failure to comply with this notice requirement shall constitute a waiver of the Claim. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within ~~60~~ 30 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 1. deny the Claim in whole or in part;
 2. approve the Claim; or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.
- G. Contractor shall not have the right to stop performance of the Work pending resolution of a Claim.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - a. If applicable, prevailing wage requirements and rates are included in the Additional Supplementary Conditions.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - 1) Rentals of construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rates published in current edition of the Rental Rate Blue Book® for construction equipment published by EquipmentWatch® (www.equipmentwatch.com). When Contractor-owned equipment is ordered by Owner or Engineer to be held at standby, equipment rental rates shall be 50% of normal rate. Rental or standby shall not include time that equipment is inoperative because of malfunction or breakdown and shall cease when the use thereof is no longer necessary for the Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. Cash Allowances:
 1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. Contingency Allowance:
 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs by plus or minus 20 percent~~materially and significantly~~ from the estimated quantity of such item indicated in the Agreement or the Unit Prices for individual items differ by plus or minus 5 percent; and
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or
2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor, provided, however, that on any subcontracted work the total maximum fee to be paid by Owner under this subparagraph shall be no greater than 27 percent of the costs incurred by the Subcontractor who actually performs the Work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, acts of war or terrorism, or acts of God (force majeure).
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of war or terrorism, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents (such as partial utilization in Paragraph 14.05), any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. repair such defective land or areas; or
 2. correct such defective Work; or
 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor and may be deducted from amounts otherwise due the Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work, including materials, equipment and supplies or as defined in manufacturers' and Suppliers' warranties (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed and the terms of this Paragraph 13.07 will continue to apply.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, or immediately in the case of an emergency, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens and provides an indemnity satisfactory to Owner for all claims, costs, losses and damages arising out of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended including liability for liquidated damages and correction of defective work by Owner or others; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use and final testing has been completed in accordance with the General Requirements, Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) using the Notice of Substantial Completion form included in the Contract Documents, submit the Contractor's written general warranty and guarantee per Paragraph 6.19.D., and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion using the Certificate of Substantial Completion included in the Contract Documents. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment (Punch List). Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

- B. Owner may request in writing that Contractor permit Owner to separately operate any part of the Work although it is not substantially complete subject to the following conditions.

1. A copy of such request will be sent to Engineer and, within a reasonable time thereafter, Owner, Contractor and Engineer shall make an inspection of that part of the Work not substantially complete to determine the status of completion and will prepare a Punch List before final payment.
2. If Contractor does not indicate in writing to Owner and Engineer that such part of the Work is not ready for separate operation by Owner, Engineer will finalize the Punch List and will deliver such list to Owner and Contractor, together with a written recommendation as to the division of responsibilities between Owner and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work pending final payment.

3. The Engineer's recommendation and Punch List will become binding upon Owner and Contractor at the time the Owner takes over and separately operates such part of the Work unless otherwise agreed in writing and so informed Engineer.
4. During such separate operation by Owner and prior to Substantial Completion of such part of the Work, Owner shall allow Contractor reasonable access to complete or correct Punch List and to complete other related Work.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, warranties, updated Contractor's written general warranty and guarantee per Paragraph 6.19.D if modified., bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, and Engineer has indicated that the Work is acceptable (subject to the provisions of Paragraph 14.09). Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been

paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable using the Certificate of Completion form included in the Contract Documents, subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted as detailed on the Certificate of Completion. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees

specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

B. If the performance of all or any part of the Work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Owner, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this Contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this Contract, such suspension, delay, or interruption shall be considered as if ordered by the Owner in the administration of this Contract under the terms of Article 15 except that it will not be possible for the Owner to fix the date for resumption of the Work.

1. The term "environmental litigation", as used herein, means a claim or lawsuit alleging that the Work has or will have an adverse effect on the environment or that the Owner has not duly considered, either substantively or procedurally, the effect of the Work on the environment.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 1. Contractor's ~~persistent~~ failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents; or

5. Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any Laws and Regulations in effect at such time relating to the bankruptcy or insolvency; or
 6. a petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any Laws and Regulations in effect at the time relating to bankruptcy or insolvency; or
 7. Contractor makes a general assignment for the benefit of creditors; or
 8. a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors; or
 9. Contractor admits in writing its inability to pay its debts generally as they become due.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. ~~all~~ reasonable claims, costs, losses, and damages (including but not limited to ~~all~~ reasonable fees and charges of engineers, architects, attorneys, and other professionals and ~~all~~ reasonable court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Subject to the requirements in Paragraph 10.05, Owner and Contractor agree that they will submit any and all unsettled Claims, counterclaims, disputes and other matters in question between them arising out of or relating to the Contract Documents ("disputes"), to mediation by senior management representatives of each party for a period of 5 days. If resolution is not achieved, then the dispute shall be submitted to formal mediation prior to either of them initiating against the other, a demand for arbitration pursuant to Paragraph 16.02, unless delay in initiating arbitration would irrevocably prejudice one of the Parties. Any time limits within which to file a demand for arbitration shall be suspended with respect to a dispute submitted to mediation within those same applicable time limits and shall remain suspended until 10 days after the termination of the mediation. The mediator of any dispute submitted to mediation shall not serve as arbitrator of such dispute unless otherwise agreed.

A.B. Subject to Paragraph 16.01.A, either Owner or Contractor may request formal mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B.C. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C.D. If the Claim is not resolved by senior management mediation or formal mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke ~~any the~~ dispute resolution process pursuant to Paragraph 16.02 provided for in the Supplementary Conditions; or
2. agrees with the other party to submit the Claim to another dispute resolution process; ~~or~~

3. ~~gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.~~

16.02 Arbitration

- A. All Claims or counterclaims, disputes, or other matters in question between Owner and Contractor arising out of or relating to the Contract Documents or the breach thereof (except for Claims which have been waived by the making or acceptance of final payment as provided by Paragraph 14.09) including but not limited to those not resolved under the provisions of Paragraphs 10.05 or 16.01, will be subject to arbitration in accordance with the rules of Construction Industry Rules of the American Arbitration Association, subject to the conditions and limitations of this Paragraph 16.02. This agreement to arbitrate, and any other agreement or consent to arbitrate entered into, will be specifically enforceable under the prevailing Laws of any court having jurisdiction.
- B. The demand for arbitration will be filed in writing with the other party to this Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the 30 day period specified in Paragraph 16.01.D, and in all other cases, within a reasonable time after the Claim or counterclaim, dispute, or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such Claim or other dispute or matter in question would be barred by the applicable statute of limitations.
- C. No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
 1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and
 2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.
- D. Consolidation shall be by order of the arbitrator(s) in any pending case, or if the arbitrator(s) fail to make an order, a party may apply to a court of competent jurisdiction for such order. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity shall be specifically enforceable in accordance with the Laws of any court having jurisdiction thereof.
- E. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include: (i) a concise breakdown of the award; (ii) a written explanation of the award specifically citing the Contract Document provisions deemed applicable and relied on in making the award.

F. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the controlling Laws relating to vacating or modifying an arbitral award.

G. If the parties decline to arbitrate, such Claims, disputes and other matters shall be decided by a court having jurisdiction.

16.03 General

A. The Contractor will require similar arbitration provisions in agreements with its Subcontractors and Suppliers.

B. Contractor shall not have the right to stop performance of the Work pending resolution of a Claim or dispute.

C. Notwithstanding any provision contained in this Article or elsewhere in the Contract Documents, the Owner reserves the following rights in connection with Claims and disputes between the Owner and the Contractor:

1. The right to institute legal action against the Contractor in any court of competent jurisdiction in lieu of demanding arbitration pursuant to this Article, in which case the Claims or disputes which are the subject of such action shall be decided by such court, and not by arbitration.

2. The right to obtain from any court of competent jurisdiction a stay of any arbitration instituted by the Contractor, provided that the application for such stay is made before the appointment of the neutral arbitrator in such arbitration, in which case the Claims or disputes which are the subject of such arbitration shall be decided by such court, and not by arbitration.

3. The right to require the Contractor to join as a party in any arbitration between the Owner and the Engineer relating to the Project, in which case the Contractor agrees to be bound by the decision of the arbitrator or arbitrators in such arbitration.

ARTICLE 17 – MISCELLANEOUS

17.01 Giving Notice

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is 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.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located. See Additional Supplementary Conditions for specific requirements.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

17.07 *Professional Fees and Court Costs Included*

- A. In any action or proceeding to enforce or interpret any contractual provision or to resolve any conflict or dispute relating to or arising from this Contract, the prevailing party shall be entitled to recover, as part of its claim, award or judgment, reasonable attorneys' fees and associated costs and expenses, including expenses of engineering, claims and other consultants.

END OF SECTION

SECTION 00801

ADDITIONAL SUPPLEMENTARY CONDITIONS

The following are in addition to the modifications highlighted within the text of the Standard General Conditions of the Construction Contract with Standard Supplementary Conditions (“Standard General and Supplementary Conditions”). All provisions which are not so modified or supplemented remain in full force and effect. The Additional Supplementary Conditions may include certain provisions required by Laws and Regulations. Contractor is responsible to determine and obtain applicable Laws and Regulations and to review and interpret the full text of such Laws and Regulations.

The terms used in these Additional Supplementary Conditions have the meanings stated in the Standard General and Supplementary Conditions and as included within the Sections listed below.

- 00805 Specific Project Requirements
- 00811 Statutory Requirements
- 00813 Wage Determination Schedule
- 00814 Wage Rates Requirements
- 00815 Equal Employment Opportunity Requirements
- 00818 Health and Safety Criteria

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SECTION 00805

SPECIFIC PROJECT REQUIREMENTS

GENERAL

The address system used herein is the same as the address system used in the Standard General and Supplementary Conditions, with the prefix "SC" added thereto. Additional terms used in this Section have the meanings stated below, which are applicable to both the singular and plural thereof.

The contents of this Section do not represent or reflect all applicable provisions and policies or Laws and Regulations, and may only include excerpts and portions thereof. Other required provisions and policies, and Laws and Regulations, shall be deemed to be so included and incorporated herein. Contractor is solely responsible to determine, obtain, review and interpret the full text of applicable provisions and policies, Regulations, and Laws.

SC-1.01.B Additional Terms: Add the following new definition.

6. *Installer* -- The entity engaged by Contractor or a Subcontractor for installation, erection, application and similar required operations of a particular portion of the Work at the Site, including who has specialty experience in the Work they are engaged to perform.

SC-3.06 Electronic Data

Pursuant to Paragraph 3.06.A, the Contractor may rely on the following electronic data furnished by Owner or Engineer.

1. Files transmitted to the Contractor in portable document format ("PDF") which are understood by all parties to constitute official Project correspondence such as a response to a request for information or submittal review.

SC 4.01 Availability of Lands

Pursuant to Paragraph 4.01.A, the following easements and rights-of-way exist for the Project.

1. NONE

SC-4.02 Subsurface and Physical Conditions

- A. Pursuant to Paragraph 4.02.A,
1. the following reports of explorations and tests of subsurface conditions at or contiguous to the Site are known to Owner:
 - a. None
 2. The following drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) are known to Owner:
 - a. None

SC-4.06 Hazardous Environmental Conditions at Site

- A. Pursuant to Paragraph 4.06.A,
1. the following reports regarding Hazardous Environmental Conditions at the Site are known to Owner:
 - a. None
 2. The following drawings regarding Hazardous Environmental Conditions at the Site are known to Owner:
 - a. None

SC-5.02 Licensed Sureties and Insurers: At the end of the first sentence of Paragraph 5.02.A. insert "and satisfactory to the Owner".

SC-5.04 Contractor's Insurance

In Paragraph C, modify the listed coverages as follows.

2. Contractor's General Liability: \$1,000,000 Bodily Injury and Property Damage Liability, Combined Single Limit with a \$3,000,000 Annual Aggregate Limit
 - Broad Form Property Damage Liability including coverage for acts of terrorism
 - Completed Operations and Product Liability – maintained for 3 years after completion of Project
 - Contractual Liability
 - Pollution Liability
 - Independent Contractors
 - Explosion, Collapse & Underground Hazards
 - Personal Injury Coverage, Exclusion "C" Deleted
 - Fire Legal Liability
 - Pollution Liability

Excess or Umbrella Liability: \$5,000,000 per occurrence; \$5,000,000 general aggregate

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions: \$1,000,000 per accident for bodily injury & property damage covering Contractor and any vehicles owned, hired and non-owned by the Contractor
4. Professional Liability (E&O): \$1,000,000 per occurrence, \$3,000,000 aggregate
5. Owners Protective Liability (OCIP): Not required

SC-5.07 Waiver of Rights: Replace Paragraph A. in its entirety with “(Not Used)” and delete Paragraphs B. and C. in their entirety.

SC-6 Contractor’s Responsibilities

Pursuant to Article 6, Contractor shall comply with special coordination requirements and communicate with identified contacts during prosecution of the Work as set forth in Section 01003.

SC-6.02 Labor; Working Hours

Add the following immediately after Paragraph A.1.

2. All employees of the Contractor and its Subcontractors who may have direct supervised and or/unsupervised contact with any customers of the Owner must comply with the special screening and checks specified in Section 02501.

Pursuant to Paragraph 6.02.B, regular working hours for this Project are 7:00 a.m. to 3:00 p.m. Monday through Friday. Special circumstances may require Work to be performed outside of regular working hours. See Section 02501 for details.

SC-6.08 Permits

Pursuant to subparagraph 6.08.A.1, Contractor shall comply with the following licenses and permits Owner has obtained for the Project.

NONE

SC-6.11 Use of Site and Other Areas

Pursuant to Paragraph 6.11.A, the Contractor shall provide that access to businesses and residences are maintained during prosecution of the Work.

SC-6.19 Contractor's General Warranty and Guarantee

Add the following new Paragraph.

- G. Contractor shall guarantee that Customer information provided by Owner or obtained during the performance of Work shall be kept confidential by employees and consultants of the Contractor and its Subcontractors.

SC-6.20 Indemnification: Delete Paragraph A in its entirety and insert the following in its place:

Contractor shall, to the maximum extent permitted by law, indemnify and save harmless the City of Marlborough (Owner) and the Engineer, their officers, agents and employees from and against any and all damages liabilities, actions, suits, proceedings, claims, demands, losses, costs and expenses, (including but not limited to reasonable attorney's fees) that may arise out of or in connection with the Work being performed or to be performed by Contractor, its employees, agents, subcontractors or material men, provided that any such damages, liabilities, actions, suits, proceedings, claims, demands, losses, costs and expenses are attributable to bodily injury, including death. The existence of insurance shall in no way limit the scope of this indemnification. Contractor) further agrees to reimburse the City of Marlborough for damage to its property caused by Contractor, its employees, agents, subcontractors or material men, including damages caused by his, her, its or their use of faulty, defective or unsuitable material or equipment, unless the damage is caused by the gross negligence or willful misconduct of the City of Marlborough.

SC-7.01 Related Work at Site

Pursuant to 7.01, Owner has separately contracted for or intends to separately contract for the installation of a Fixed Network Automatic Meter Reading System. See SC-7.02 for coordination details.

SC-7.02 Coordination

Pursuant to Paragraph 7.02.A, for other work on the Project at the Site Owner has separately contracted for or intends to separately contract for as identified in SC-7.01:

Owner and Engineer will have authority and responsibility for coordination of the activities among the various contractors.

SC-13.07 Correction Period

Add the following to Paragraph 13.07.C.

1. All leaks within 3 feet of the meter couplings reported after the meter installation shall be repaired at no charge, provided that the Contractor is notified within 30 calendar days of the installation date.
2. Meters shall be furnished with a manufacturer's warranty to cover the following:
 - a. Meters shall be covered to meet AWWA standards for Accuracy for 5 years from date of acceptance of installation.
 - b. Meter maincase shall be warranted against defects for the life of the meter from date of acceptance of installation.
 - c. Meter register shall be warranted for performance, materials, and workmanship for 10 years from date of acceptance of installation.
 - d. Meter measuring chamber shall be warranted for 10 years against freeze damage if the meter has been equipped with a frostproof cast iron or synthetic polymer bottom cap.
3. Meter transmission units shall have a minimum 20 year warranty from the date of acceptance of installation, with batteries warranted for 10 years full replacement, and a prorated replacement cost in years 11 through 20.

SC-14.02 Progress Payments

Add the following immediately after subparagraph 14.02.A.1.

- a. Contractor shall be paid based on successful installations as determined by the Owner and Engineer. Owner and Engineer will review the installation reports, work orders, status of additions of the new meters to the AMR system, billing software, customer accounts and the ability of the new system to consistently receive reliable meter readings.

SC-15.02 Owner May Terminate for Cause

Add the following to Paragraph 15.02.A.

10. Inappropriate conduct of employees of Contractor or its Subcontractors.

END OF SECTION

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SECTION 00811

STATUTORY REQUIREMENTS

GENERAL

- A. The address system used herein is the same as the address system used in the Standard General and Supplementary Conditions, with the prefix "SC" added thereto. Additional terms used in this Section have the meanings stated below, which are applicable to both the singular and plural thereof.
- B. The contents of this Section do not represent or reflect all applicable Laws and Regulations and may only include excerpts and portions of certain Laws and Regulations. Other provisions required by statute shall be deemed to be so included and incorporated herein. Contractor is solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.
- C. The Project is specifically subject to the provisions of the Massachusetts General Laws ("MGL").

SC-1.01.A.15 Contractor: Add the following language at the end of the definition.

Also referred to as "general Contractor" in applicable statutory provisions which may be used interchangeably and shall have the same meaning.

SC-1.01.A.29 Owner: Add the following at the end of the definition.

Also referred to as "*Awarding Authority*" or "*contracting authority*" in applicable statutory provisions which may be used interchangeably and shall have the same meaning.

SC-1.01.A.44 Substantial Completion: Add the following language at the end of the definition.

For the purposes of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments; extra work; disputed items*, Substantial Completion shall also mean either that the Work has been completed except for Work having a valued at less than 1 percent 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 as required by the Contract.

SC-1.01.B Additional Terms: Add the following new definition.

7. *material or Material* -- As used in MGL Chapter 30, Section 39M, *Contracts for construction and materials; manner of awarding*, regarding items equal to those specified, the word “material” shall mean and include any article, assembly, system, included in the Work, or any component part thereof.

SC-4.03 Differing Subsurface or Physical Conditions: Delete Paragraph 4.03.B in its entirety and insert the following in its place.

- B. Pursuant to MGL Chapter 30, Section 39N, *Construction contracts; equitable adjustment in contract price for differing subsurface or latent physical conditions*, 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.

SC-5.01 Performance, Payment, and Other Bonds: Add the following new paragraphs immediately after Paragraph 5.01.A.

1. Pursuant to MGL Chapter 30, Section 39A, *Construction contracts for public ways, airports or public works; truck rentals; security for payment*, and MGL Chapter 149, Section 29, *Bonds for payment for labor, materials, rentals or transportation charges (et al)*, the required payment bond shall also cover payment by the Contractor and Subcontractors for the rental or hire of dump trucks and “the rental or hire of vehicles, steam shovels, rollers propelled by steam or other power, concrete mixers, tools and other appliances and equipment employed in such construction,” and for payment of transportation charges directly related to such rental or hire. Such security for payment of transportation charges shall be

incorporated by appropriate reference thereto as an additional obligation or condition in the required bonds.

2. In addition, such bonds shall cover payment by Contractor and Subcontractors of any sums due trustees or other persons authorized to collect such payments from the Contractor or Subcontractors, for health and welfare plans, supplementary unemployment benefit plans and other fringe benefits which are payable in cash and provided for in collective bargaining agreements between organized labor and the Contractor or Subcontractors.

SC-5.02 Licensed Sureties and Insurers: Add the following new paragraphs immediately after Paragraph 5.02.A.

1. Pursuant to MGL Chapter 149, Section 29D, *Surety company; bonds*, every performance bond and every payment bond issued for any construction work in the Commonwealth shall be the bond of a surety company organized pursuant to Section 105 of MGL Chapter 175 or of a surety company authorized to do business in the Commonwealth under the provisions of Section 106 of said Chapter 175 and be approved by the U.S. Department of Treasury and are acceptable as sureties and reinsurers on federal bonds under Title 31 of the United States Code, sections 9304 to 9308.
2. If there is more than one surety company, the surety companies shall be jointly and severally liable.

SC-5.04 Contractor's Insurance:

Add the following language at the end of Paragraph 5.04.A.1.

, pursuant to MGL Chapter 149, Section 34A, *Contracts for public works; workers' compensation insurance; breach of contract; enforcement and violation of statute;*

Add the following language at the end of Paragraph 5.04.C.1,

, in compliance with MGL Chapter 152

SC-6.02 Labor; Working Hours:

Add the following new paragraphs immediately after Paragraph 6.02.A.1.

2. Pursuant to MGL Chapter 30, Section 39S, *Contracts for construction; requirements*, Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.

3. Pursuant to MGL Chapter 149, Section 26, *Public works; preference to veterans and citizens; wages*, preference shall be given to citizens of the Commonwealth of Massachusetts, citizens of the town or city where the Project is located, veterans and service-disabled veterans, and citizens of the United States.
4. The Contractor shall not participate in or cooperate with an international boycott, as defined in Section 999 (b)(3) and (4) of the Internal Revenue Code as amended, or engage in conduct declared to be unlawful by MGL Chapter 151E, *Prohibition Of Certain Discrimination By Businesses, Section 2*.
5. Any Work involving the removal, containment, or encapsulation of Asbestos or material containing Asbestos may only be performed by a licensed contractor in accordance with the provisions of MGL Chapter 149, Sections 6A-6E, applicable Laws and Regulations, and requirements as may be included in the Specifications and Drawings.
6. Sheet metal work must be performed by a contractor licensed in accordance with 271 CMR, *Rules and Regulations Governing Sheet Metal Workers*, governing licensing, permitting, and sheet metal work in Massachusetts.

Add the following new paragraph immediately after Paragraph 6.02.B.

1. MGL Chapter 149, Section 30, *Eight hour day and six day week; emergencies; work on highways*, and Section 34, *Public contracts; stipulation as to hours and days of work; void contracts*, apply to this Project which limits work hours of those employed on public construction to 8 hours in any one day or 48 hours in any one week or 6 days in any one week, except in cases of emergency.

SC-6.05 Substitutes and “Or-Equals”: Add the following language at the end of Paragraph 6.05.A.

The provisions of MGL Chapter 30, Section 39M, subsection (b) also applies to this Paragraph.

SC-6.10 Taxes: Add the following new paragraph immediately after Paragraph 6.10.A.

1. MGL Chapter 64H, Section 6, *Exemptions*, subsection (f), exempts from Massachusetts sales tax, building materials and supplies to be used in the Project, and Contractor shall not include any amount therefor. The words “building materials and supplies” shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge, or other such public work, as well as such materials and supplies

physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the Project Site, or while being used exclusively for the transportation of materials for the Project.

SC-6.12 Record Documents: Add the following new paragraphs immediately after Paragraph 6.12.A.

- B. Subject to the provisions of MGL Chapter 266, Section 67C, *Capital facility construction projects, etc.; false entries in records; penalties*, and pursuant to MGL Chapter 30, Section 39R, *Definitions; contract provisions; management and financial statements; enforcement*:
1. The Contractor shall make, and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the contractor, and until the expiration of six years after final payment, the office of inspector general, and the commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the Contractor or of his Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or his Subcontractors.
 2. 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 and included in Section 00540, 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.
 3. The Contractor 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.
 4. Contractor's failure to satisfy any of the requirements of this section of the MGL may be grounds for debarment pursuant to MGL Chapter 149, Section 44C, *Suspension or debarment of contractors*.

SC-9.08 Decisions on Requirements of Contract Documents and Acceptability of Work: In Paragraph 9.08.B, replace "with reasonable promptness" with "within 30 days pursuant to MGL Chapter 30, Section 39P, *Contracts for construction and materials; awarding authority's decisions on interpretation of specifications, etc.; time limit; notice*".

SC-10.01 Authorized Changes in the Work: Add the following paragraph immediately after Paragraph 10.01.A.

5. Changes to the Work are subject to the requirements of MGL Chapter 30, Section 39I, *Deviations from plans and specifications*.

SC-10.05 Claims: Add the following paragraph immediately after Paragraph 10.05.G.

- H. Presentation of false, fictitious, or fraudulent Claims is subject to the provisions of MGL Chapter 266, Section 67B, *Presentation of false claims*.

SC-11.01. Cost of the Work:

Pursuant to subparagraph 11.01.A.1.a, prevailing wage requirements are included in Sections 00813 and 00814.

Add the following new paragraph immediately after Paragraph 11.01.A.5.d.

- 1) The Project is exempt from sales tax as set forth in SC-6.01.

SC-12.01 Change of Contract Price: Add the following new paragraph immediately after Paragraph 12.01.B.3.

4. **Monthly Price Adjustments for Certain Materials:** As required by Massachusetts Chapter 150 of the Acts of 2013, the following price adjustment clauses for fuel (both diesel and gasoline) shall be applicable to the Project. The following Base Prices are established for the Project, based on period prices for February 2014 as published by the Massachusetts Department of Transportation - Highway Division.

Gasoline – \$3.155 per GALLON

- b. **Monthly Price Adjustment for Diesel Fuel and Gasoline:** This adjustment will provide for either additional compensation to the Contractor or repayment to the Owner, depending on an increase or decrease in the Period Price of Diesel Fuel or Gasoline.
 - 1) Base Price: The Base Price of Diesel Fuel and Gasoline listed above is the fixed price determined at the time of Bid by the Owner by using the same method as for the determination of the Period Price detailed below.
 - 2) Price Adjustment: The Price Adjustment will be based on fuel usage factors for various items of Work included. These factors will be multiplied by the quantities of Work completed in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

- 3) Period Price: The Period Price for this Contract shall be the current Diesel Period Price and Gasoline Period Price, in English Units, as published by the Massachusetts Department of Transportation – Highway Division at <http://www.mhd.state.ma.us/default.asp?pgid=content/fuelPrices&sid=about>
- 4) Applicability The fuel Price Adjustment will apply only to the following items of Work listed at the fuel factors shown.

ITEMS OF WORK COVERED (PER BID FORM)	FUEL FACTORS	
	DIESEL	GASOLINE
1A through 1E, 2 and 3	N/A	0.1 Gallons per EA

- 5) Payment/Credit of Price Adjustment: The Price Adjustment will be a separate payment item and processed by Change Order. The Contract Price of items listed below will be paid under the respective items in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the Work has been performed, using the monthly Period Price for the month during which the Work was performed.
- a) The Price Adjustment will be a separate payment item. For all items, the Price Adjustment will be determined by multiplying the number of units of each item of Work times the fuel factor for each item of Work times the variance in price between Base Price and Period Price of diesel or gasoline.
- b) The Price Adjustment will be paid or credited if the variance from the Base Price is 5 percent or more for a monthly period. No further Price Adjustments will be processed after the Contract is finally complete, unless an extension of Contract Time is approved by the Owner.

SC-14.02. Progress Payments

Add the following new paragraph immediately after subparagraph 14.02.A.1.a.

- b. Pursuant to MGL Chapter 30, Section 39S, *Contracts for construction; requirements*, provide with the first certified payroll record, certification for each employee employed at the Work Site of successful completion of a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins Work.

Add the following new paragraph immediately after Paragraph 14.02.C.1.

2. The provisions of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments; extra work; disputed items*, covering “periodic estimate” and “periodic payment” apply to this Project and shall be considered Progress Payments per Paragraph 14.02. However, the Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, and the forms listed in Section 00605 and included in the Contract Documents will be utilized.

Add the following new paragraph immediately after Paragraph 14.02.D.3.

- E. The following provisions regarding payment to Subcontractors are required by MGL Chapter 30, Section 39F, *Construction contracts; assignment and subrogation; subcontractor defined; enforcement of claim for direct payment; deposit, reduction of disputed amounts*. These provisions shall be included in any subcontract in connection with Work under the Contract Documents.
 1. The Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, if any.
 - 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 65th 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) above 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 subparagraphs (a) and (b) above, the Awarding Authority shall act upon the demand as provided in this section of the MGL.
- d. If, within 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 balance 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 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 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 subparagraph.

- f. The Awarding Authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) above 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) above 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) above, 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.

SC 14.04 Substantial Completion: Add the following new paragraph immediately after Paragraph 14.04.E.

- F. The provisions of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments; extra work; disputed items*, covering substantial completion apply to this Project. However, the Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions if any, and the forms listed in Section 00605 and included in the Contract Documents will be utilized.

SC 14.07 Final Payment: Add the following new paragraph immediately after Paragraph 14.07.C.1.

- D. The provisions of MGL Chapter 30, Section 39G, *Completion of public works; semi-final and final estimates; payments; extra work; disputed items* covering the final estimate and completion of the Work apply to this Project. However, the Engineer will perform some of indicated actions on behalf of the Awarding Authority as its representative, consistent with the role and responsibilities defined in the Standard General and Supplementary Conditions and Additional Supplementary Conditions if any, and the forms listed in Section 00605 and included in the Contract Documents will be utilized.

SC-15.01 Owner May Suspend Work: Add the following new paragraphs immediately after Paragraph 15.01.A.

1. Pursuant to MGL Chapter 30, Section 39O, *Contracts for construction and materials; suspension, delay or interruption due to order of awarding authority; adjustment in contract price; written claim*, 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 15 days or more or due to a failure of the Awarding Authority to act within the time specified in the Contract, the Awarding Authority shall make an adjustment in the Contract Price for any increase in the cost of performance of the 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.

2. The general Contractor must submit the amount of a Claim under provision 1 above 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 the Contract and, except for costs due to a suspension order, the Awarding Authority shall not approve any costs in the Claim incurred more than 20 days before the general Contractor notified the Awarding Authority in writing of the act or failure to act involved in the Claim.
3. 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 1 and 2 above give the general Contractor against the Awarding Authority, but nothing in provisions 1 and 2 above shall in any way change, modify or alter any other rights which the general Contractor or the Subcontractor may have against each other.

SC-17.05 Controlling Law: Add the following new paragraphs immediately after Paragraph 17.05.A.

1. This Contract is subject to all Laws and Regulations of the United States of America (including the U.S. Code of Federal Regulations), the Commonwealth of Massachusetts and other public authorities, and all amendments thereto. Where any requirements contained herein do not conform to or are inconsistent with such Laws and Regulations to which the Contract is subject or by which it is governed, such Laws and Regulations shall have precedence over any matters set forth herein.
2. The Project is specifically subject to MGL Chapters 30 and 149 for contracts awarded pursuant to MGL Chapter 30, Section 39M.
3. Statutes, Regulations, and portions and summaries thereof which are set forth or referred to in the Contract Documents shall be construed to include all amendments thereto in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids). The Owner and Engineer make no representation as to and assume no responsibility for the correctness or completeness of such statutory matters referred to or set forth herein.
4. Any provision in violation of the foregoing shall be deemed null, void and of no effect. Where conflicts with Laws and Regulations exist, the more stringent requirement shall apply.

END OF SECTION

SECTION 00813

WAGE DETERMINATION SCHEDULE

The Project is subject to the following wage rates (included in this section) in accordance with the requirements included in Section 00814.

- Minimum wage rates as determined by the Commissioner of Department of Workforce Development pursuant to MGL Chapter 149, Sections 26 to 27D.

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SECTION 00814

WAGE RATES REQUIREMENTS

The Project is subject to minimum wage rates as determined by the Commissioner of Department of Workforce Development and the requirements of MGL Chapter 149, Sections 26, 27, and 27A through 27D. Wage Determination Schedules are included in Section 00813. In addition, pursuant to MGL Chapter 149, Section 34B, wages paid to reserve police officers shall be the same prevailing rate of wage paid to regular police officers at the location of the Project.

Obtain the latest Weekly Payroll and Compliance forms from the following website.

<http://www.mass.gov/lwd/labor-standards/prevailing-wage-program>

Prevailing Wage Program



The Official Website of the Executive Office of Labor and Workforce Development (EOLWD)

Labor and Workforce Development

Home > Labor Standards > Prevailing Wage Program

Prevailing Wage Program

The Department of Labor Standards (DLS) issues prevailing wage schedules to cities, towns, counties, districts, authorities, and agencies of the commonwealth for construction projects and several other types of public work. These prevailing wage schedules contain hourly wage rates that workers must receive when working on a public project.

Register as a Requestor

Click on the above link to register yourself as a regular Requestor of prevailing wages. Once you Register as a Requestor for the first time, you will be assigned a Requestor Registration ID number, e.g., "PW000250", which you should save and use every time you log-in to make a request for wages. By entering your Requestor Registration ID number, your request will automatically be pre-populated with all of your registered contact information.

Official Request for Prevailing Wages

Click on the above link if you are an Awarding Authority and need to request an "Official" prevailing wage schedule from DLS. You will be required to enter information for each text box or check box with a red asterisk next to it. When entering your "Project Description", please include as much information as possible in order to properly describe your project to DLS. Once DLS receives your request, we will review the information you entered, and email you back a prevailing wage schedule in PDF format.

Example Request for Prevailing Wages

Click on the above link to request an "Example" copy of a prevailing wage schedule. This feature allows any party to find out what the prevailing wages are in any location throughout the Commonwealth at the time of the request. Prospective bidders for public projects may find it useful to use this feature, since rates shown on example rate schedules show the current effective wage rates at the time the schedule is requested. Please note, an example prevailing wage schedule should never be incorporated into a contract going out to bid or for any official purposes, but is only to be used for reference. An Example prevailing wage schedule will appear as a PDF document, which can be printed from the screen or saved to your hard drive.

Annual Update Request

Click on the link if you are an Awarding Authority and need to request an "Annual Update" to your existing prevailing wage schedule. Pursuant to M.G.L. chapter 149, section 27, Awarding Authorities are required to request "Annual Updates" to public construction contracts bid on or after August 8, 2008. Please use your "Updated" prevailing wage schedule to replace your current prevailing wage schedule, effective on the anniversary of the execution of the contract by the awarding authority and the general contractor. Please be sure to enter the existing "Job ID Number" in the "Project Description" section of your Annual Update Request.

Request a Re-Print of a Previously Issued Wage Schedule

Click on the above link if you need to re-print an official prevailing wage schedule that was already issued to you by DLS. Please note that schedules are only valid for 90 days from the date of issuance; you should request a new wage schedule if you have not opened bids or selected a contractor within 90 days of the date of issuance of the schedule you are seeking to reprint. The "Reprint" function should only be used if an Awarding Authority has misplaced a schedule or if multiple copies of the same schedule are needed by contractors or other interested persons. Note also that reprinting the same schedule with this function does not satisfy the requirement of M.G.L. chapter 149, section 27, amended on August 8, 2008, requiring annual updates to prevailing wage schedules for all public construction projects lasting longer than one year. Annual updates for multi-year projects need to be requested through the "Annual Update Request" link.

Please note: the re-print option is only available for schedules issued by DLS on or after July 17, 2009.

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Prevailing Wage Index

Last updated February 2014. Check regularly for future updates.

Prevailing Wage Opinion Letters

Prevailing Wage Notices

A Guide to the MA Prevailing Wage Law for...

An overview of what awarding authorities need to know about the Massachusetts Prevailing Wage Law, including frequently asked questions.

A Guide to the MA Prevailing Wage Law for...

An overview of what contractors need to know about the Massachusetts Prevailing Wage Law, including frequently asked questions.

Prevailing Wage Statutes

Housing Authority Position Request Form

Payroll Record Form

Statement of Compliance

WEEKLY PAYROLL RECORDS REPORT
& STATEMENT OF COMPLIANCE

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

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years from the date of completion of the project.

Each such contractor or subcontractor shall furnish to the awarding authority directly within 15 days after completion of its portion of the work, a statement, executed by the contractor, subcontractor or by any authorized officer thereof who supervised the payment of wages, this form.

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

09/11

MASSACHUSETTS WEEKLY CERTIFIED PAYROLL REPORT FORM



Company's Name:		Address:		Phone No.:		Payroll No.:												
Employer's Signature:		Title:		Contract No.:		Work Week Ending:												
Awarding Authority's Name:		Public Works Project Name:		Public Works Project Location:		Min. Wage Rate Sheet No.:												
General / Prime Contractor's Name:		Subcontractor's Name:		"Employer" Hourly Fringe Benefit Contributions														
Employee Name & Complete Address	Employee is OSHA 10 Certified (?)	Work Classification:	Appr. Rate (%)	Hours							Project Hours (A)	Hourly Base Wage (B)	Health & Welfare Insurance (C)	ERISA Pension Plan (D)	Supp. Unemp. (E)	Total Hourly Prev. Wage (F)	Project Gross Wages (G)	Check No. (H)
				Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.								
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NOTE: Pursuant to MGL Ch. 149 s.27B, every contractor and subcontractor is required to submit a "true and accurate" copy of their weekly payroll records directly to the awarding authority. Failure to comply may result in the commencement of a criminal action or the issuance of a civil citation.

Date received by awarding authority _____ / _____ / _____

Page _____ of _____

END OF SECTION



DEVAL L. PATRICK
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

RACHEL KAPRIELIAN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Marlborough
Contract Number: Contract No. 2014-16 **City/Town:** MARLBOROUGH
Description of Work: The project which includes, but is not limited to the purchase, delivery and installation of water meters ranging in size from 1.5-inch to 6-inch and the installation MTUs on meters installed.
Job Location: 135 Neil St, Marlborough, MA 01752

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.
- Awarding authorities 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.
- 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. Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project. The wage schedule must be posted in a conspicuous place at the work site during 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 regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Training (DAT). Apprentices must keep his/her apprentice identification card on his/her person during all work hours on the project. If an apprentice rate is listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAT, the apprentice may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **If an apprentice rate is not listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAT, the apprentice must be paid the journeyworker’s rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. 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 directly to the awarding authority and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2013	\$30.95	\$9.41	\$8.80	\$0.00	\$49.16
	06/01/2014	\$31.30	\$9.41	\$8.80	\$0.00	\$49.51
	08/01/2014	\$31.30	\$9.91	\$8.80	\$0.00	\$50.01
	12/01/2014	\$31.30	\$9.91	\$9.33	\$0.00	\$50.54
	06/01/2015	\$31.65	\$9.91	\$9.33	\$0.00	\$50.89
	08/01/2015	\$31.65	\$10.41	\$9.33	\$0.00	\$51.39
	12/01/2015	\$31.65	\$10.41	\$10.08	\$0.00	\$52.14
	06/01/2016	\$32.15	\$10.41	\$10.08	\$0.00	\$52.64
	08/01/2016	\$32.15	\$10.91	\$10.08	\$0.00	\$53.14
	12/01/2016	\$32.15	\$10.91	\$10.89	\$0.00	\$53.95
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2013	\$31.02	\$9.41	\$8.80	\$0.00	\$49.23
	06/01/2014	\$31.37	\$9.41	\$8.80	\$0.00	\$49.58
	08/01/2014	\$31.37	\$9.91	\$8.80	\$0.00	\$50.08
	12/01/2014	\$31.37	\$9.91	\$9.33	\$0.00	\$50.61
	06/01/2015	\$31.72	\$9.91	\$9.33	\$0.00	\$50.96
	08/01/2015	\$31.72	\$10.41	\$9.33	\$0.00	\$51.46
	12/01/2015	\$31.72	\$10.41	\$10.08	\$0.00	\$52.21
	06/01/2016	\$32.22	\$10.41	\$10.08	\$0.00	\$52.71
	08/01/2016	\$32.22	\$10.91	\$10.08	\$0.00	\$53.21
	12/01/2016	\$32.22	\$10.91	\$10.89	\$0.00	\$54.02
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2013	\$31.14	\$9.41	\$8.80	\$0.00	\$49.35
	06/01/2014	\$31.49	\$9.41	\$8.80	\$0.00	\$49.70
	08/01/2014	\$31.49	\$9.91	\$8.80	\$0.00	\$50.20
	12/01/2014	\$31.49	\$9.91	\$9.33	\$0.00	\$50.73
	06/01/2015	\$31.84	\$9.91	\$9.33	\$0.00	\$51.08
	08/01/2015	\$31.84	\$10.41	\$9.33	\$0.00	\$51.58
	12/01/2015	\$31.84	\$10.41	\$10.08	\$0.00	\$52.33
	06/01/2016	\$32.34	\$10.41	\$10.08	\$0.00	\$52.83
	08/01/2016	\$32.34	\$10.91	\$10.08	\$0.00	\$53.33
	12/01/2016	\$32.34	\$10.91	\$10.89	\$0.00	\$54.14
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$84.21	\$9.80	\$18.17	\$0.00	\$112.18
	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
AIR TRACK OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	06/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	12/01/2014	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	06/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	12/01/2015	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	06/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	12/01/2016	\$33.85	\$7.30	\$12.10	\$0.00	\$53.25

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	12/01/2013	\$30.68	\$10.40	\$5.95	\$0.00	\$47.03
	06/01/2014	\$31.58	\$10.40	\$5.95	\$0.00	\$47.93
	12/01/2014	\$32.48	\$10.40	\$5.95	\$0.00	\$48.83
	06/01/2015	\$33.43	\$10.40	\$5.95	\$0.00	\$49.78
	12/01/2015	\$34.38	\$10.40	\$5.95	\$0.00	\$50.73
ASPHALT RAKER <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	06/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	12/01/2014	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	06/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	12/01/2015	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	06/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	12/01/2016	\$33.85	\$7.30	\$12.10	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2010	\$37.70	\$6.97	\$11.18	\$0.00	\$55.85

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2010

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
2	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
3	70	\$26.39	\$6.97	\$11.18	\$0.00	\$44.54
4	75	\$28.28	\$6.97	\$11.18	\$0.00	\$46.43
5	80	\$30.16	\$6.97	\$11.18	\$0.00	\$48.31
6	85	\$32.05	\$6.97	\$11.18	\$0.00	\$50.20
7	90	\$33.93	\$6.97	\$11.18	\$0.00	\$52.08
8	95	\$35.82	\$6.97	\$11.18	\$0.00	\$53.97

Notes:

Apprentice to Journeyworker Ratio:1:5

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	03/01/2014	\$45.96	\$10.18	\$17.55	\$0.00	\$73.69
BRICKLAYERS LOCAL 3 (LOWELL)	09/01/2014	\$46.86	\$10.18	\$17.62	\$0.00	\$74.66
	03/01/2015	\$47.42	\$10.18	\$17.62	\$0.00	\$75.22
	09/01/2015	\$48.32	\$10.18	\$17.69	\$0.00	\$76.19
	03/01/2016	\$48.89	\$10.18	\$17.69	\$0.00	\$76.76
	09/01/2016	\$49.79	\$10.18	\$17.77	\$0.00	\$77.74
	03/01/2017	\$50.36	\$10.18	\$17.77	\$0.00	\$78.31

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.98	\$10.18	\$17.55	\$0.00	\$50.71
2	60	\$27.58	\$10.18	\$17.55	\$0.00	\$55.31
3	70	\$32.17	\$10.18	\$17.55	\$0.00	\$59.90
4	80	\$36.77	\$10.18	\$17.55	\$0.00	\$64.50
5	90	\$41.36	\$10.18	\$17.55	\$0.00	\$69.09

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.43	\$10.18	\$17.62	\$0.00	\$51.23
2	60	\$28.12	\$10.18	\$17.62	\$0.00	\$55.92
3	70	\$32.80	\$10.18	\$17.62	\$0.00	\$60.60
4	80	\$37.49	\$10.18	\$17.62	\$0.00	\$65.29
5	90	\$42.17	\$10.18	\$17.62	\$0.00	\$69.97

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2013	\$34.45	\$7.30	\$12.90	\$0.00	\$54.65
	06/01/2014	\$35.20	\$7.30	\$12.90	\$0.00	\$55.40
	12/01/2014	\$35.95	\$7.30	\$12.90	\$0.00	\$56.15
	06/01/2015	\$36.70	\$7.30	\$12.90	\$0.00	\$56.90
	12/01/2015	\$37.45	\$7.30	\$12.90	\$0.00	\$57.65
	06/01/2016	\$38.20	\$7.30	\$12.90	\$0.00	\$58.40
	12/01/2016	\$39.20	\$7.30	\$12.90	\$0.00	\$59.40

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2013	\$33.30	\$7.30	\$12.90	\$0.00	\$53.50
	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2013	\$33.30	\$7.30	\$12.90	\$0.00	\$53.50
	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2014	\$34.78	\$9.80	\$15.91	\$0.00	\$60.49
	09/01/2014	\$35.55	\$9.80	\$15.91	\$0.00	\$61.26
	03/01/2015	\$36.32	\$9.80	\$15.91	\$0.00	\$62.03

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.39	\$9.80	\$1.57	\$0.00	\$28.76
2	60	\$20.87	\$9.80	\$1.57	\$0.00	\$32.24
3	70	\$24.35	\$9.80	\$11.20	\$0.00	\$45.35
4	75	\$26.09	\$9.80	\$11.20	\$0.00	\$47.09
5	80	\$27.82	\$9.80	\$12.77	\$0.00	\$50.39
6	80	\$27.82	\$9.80	\$12.77	\$0.00	\$50.39
7	90	\$31.30	\$9.80	\$14.34	\$0.00	\$55.44
8	90	\$31.30	\$9.80	\$14.34	\$0.00	\$55.44

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.78	\$9.80	\$1.57	\$0.00	\$29.15
2	60	\$21.33	\$9.80	\$1.57	\$0.00	\$32.70
3	70	\$24.89	\$9.80	\$11.20	\$0.00	\$45.89
4	75	\$26.66	\$9.80	\$11.20	\$0.00	\$47.66
5	80	\$28.44	\$9.80	\$12.77	\$0.00	\$51.01
6	80	\$28.44	\$9.80	\$12.77	\$0.00	\$51.01
7	90	\$32.00	\$9.80	\$14.34	\$0.00	\$56.14
8	90	\$32.00	\$9.80	\$14.34	\$0.00	\$56.14

Notes:

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING	01/01/2014	\$39.29	\$10.90	\$18.71	\$1.30	\$70.20
BRICKLAYERS LOCAL 3 (LOWELL)	07/01/2014	\$40.12	\$10.90	\$18.71	\$1.30	\$71.03
	01/01/2015	\$40.80	\$10.90	\$18.71	\$1.30	\$71.71
	07/01/2015	\$41.63	\$10.90	\$18.71	\$1.30	\$72.54
	01/01/2016	\$42.32	\$10.90	\$18.71	\$1.30	\$73.23

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CEMENT MASONRY/PLASTERING - Lowell

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.65	\$10.90	\$12.21	\$1.30	\$44.06
2	60	\$23.57	\$10.90	\$13.71	\$1.30	\$49.48
3	65	\$25.54	\$10.90	\$14.71	\$1.30	\$52.45
4	70	\$27.50	\$10.90	\$15.71	\$1.30	\$55.41
5	75	\$29.47	\$10.90	\$16.71	\$1.30	\$58.38
6	80	\$31.43	\$10.90	\$17.71	\$1.30	\$61.34
7	90	\$35.36	\$10.90	\$18.71	\$1.30	\$66.27

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.06	\$10.90	\$12.21	\$1.30	\$44.47
2	60	\$24.07	\$10.90	\$13.71	\$1.30	\$49.98
3	65	\$26.08	\$10.90	\$14.71	\$1.30	\$52.99
4	70	\$28.08	\$10.90	\$15.71	\$1.30	\$55.99
5	75	\$30.09	\$10.90	\$16.71	\$1.30	\$59.00
6	80	\$32.10	\$10.90	\$17.71	\$1.30	\$62.01
7	90	\$36.11	\$10.90	\$18.71	\$1.30	\$67.02

Notes:

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

Apprentice to Journeyworker Ratio:1:3

CHAIN SAW OPERATOR LABORERS - ZONE 2	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES OPERATING ENGINEERS LOCAL 4	12/01/2013	\$41.49	\$10.00	\$14.18	\$0.00	\$65.67
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

COMPRESSOR OPERATOR OPERATING ENGINEERS LOCAL 4	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

DELEADER (BRIDGE) PAINTERS LOCAL 35 - ZONE 2	01/01/2014	\$45.91	\$7.85	\$16.10	\$0.00	\$69.86
	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.96	\$7.85	\$0.00	\$0.00	\$30.81
2	55	\$25.25	\$7.85	\$3.66	\$0.00	\$36.76
3	60	\$27.55	\$7.85	\$3.99	\$0.00	\$39.39
4	65	\$29.84	\$7.85	\$4.32	\$0.00	\$42.01
5	70	\$32.14	\$7.85	\$14.11	\$0.00	\$54.10
6	75	\$34.43	\$7.85	\$14.44	\$0.00	\$56.72
7	80	\$36.73	\$7.85	\$14.77	\$0.00	\$59.35
8	90	\$41.32	\$7.85	\$15.44	\$0.00	\$64.61

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN LABORERS - ZONE 2	12/01/2013	\$33.50	\$7.30	\$12.70	\$0.00	\$53.50
	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 2	12/01/2013	\$34.50	\$7.30	\$12.70	\$0.00	\$54.50
	06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
	12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
	06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
	12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS - ZONE 2	12/01/2013	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
	12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 2</i>	12/01/2013	\$34.50	\$7.30	\$12.70	\$0.00	\$54.50
	06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
	12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
	06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
	12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2013	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
	12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 2</i>	12/01/2013	\$33.50	\$7.30	\$12.70	\$0.00	\$53.50
	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$56.14	\$9.80	\$18.17	\$0.00	\$84.11
	08/01/2014	\$58.24	\$9.80	\$18.17	\$0.00	\$86.21
	08/01/2015	\$60.34	\$9.80	\$18.17	\$0.00	\$88.31
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$40.10	\$9.80	\$18.17	\$0.00	\$68.07
	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$60.15	\$9.80	\$18.17	\$0.00	\$88.12
	08/01/2014	\$62.40	\$9.80	\$18.17	\$0.00	\$90.37
	08/01/2015	\$64.65	\$9.80	\$18.17	\$0.00	\$92.62
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$84.21	\$9.80	\$18.17	\$0.00	\$112.18
	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
ELECTRICIAN <i>ELECTRICIANS LOCAL 96</i>	12/01/2013	\$37.87	\$7.66	\$12.69	\$0.00	\$58.22
	06/01/2014	\$38.12	\$7.91	\$12.86	\$0.00	\$58.89
	12/01/2014	\$38.37	\$8.16	\$13.12	\$0.00	\$59.65
	06/01/2015	\$38.87	\$8.16	\$13.62	\$0.00	\$60.65
	12/01/2015	\$39.37	\$8.41	\$13.68	\$0.00	\$61.46

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ELECTRICIAN - Local 96

Effective Date - 12/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.15	\$7.66	\$0.45	\$0.00	\$23.26
2	43	\$16.28	\$7.66	\$0.49	\$0.00	\$24.43
3	48	\$18.18	\$7.66	\$9.93	\$0.00	\$35.77
4	55	\$20.83	\$7.66	\$10.29	\$0.00	\$38.78
5	65	\$24.62	\$7.66	\$10.83	\$0.00	\$43.11
6	80	\$30.30	\$7.66	\$11.63	\$0.00	\$49.59

Effective Date - 06/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$15.25	\$7.91	\$0.46	\$0.00	\$23.62
2	43	\$16.39	\$7.91	\$0.49	\$0.00	\$24.79
3	48	\$18.30	\$7.91	\$10.09	\$0.00	\$36.30
4	55	\$20.97	\$7.91	\$10.46	\$0.00	\$39.34
5	65	\$24.78	\$7.91	\$11.00	\$0.00	\$43.69
6	80	\$30.50	\$7.91	\$11.80	\$0.00	\$50.21

Notes:

Steps 1-2 are 1000 hrs; Steps 3-6 are 1500 hrs.

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR	01/01/2012	\$52.45	\$8.78	\$6.96	\$0.00	\$68.19
ELEVATOR CONSTRUCTORS LOCAL 4						

Apprentice - ELEVATOR CONSTRUCTOR - Local 4

Effective Date - 01/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.23	\$8.78	\$0.00	\$0.00	\$35.01
2	55	\$28.85	\$8.78	\$6.96	\$0.00	\$44.59
3	65	\$34.09	\$8.78	\$6.96	\$0.00	\$49.83
4	70	\$36.72	\$8.78	\$6.96	\$0.00	\$52.46
5	80	\$41.96	\$8.78	\$6.96	\$0.00	\$57.70

Notes:

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

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER	01/01/2012	\$38.59	\$8.78	\$6.96	\$0.00	\$54.33
ELEVATOR CONSTRUCTORS LOCAL 4						

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FENCE & GUARD RAIL ERECTOR <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2013	\$38.73	\$10.00	\$13.55	\$0.00	\$62.28
	05/01/2014	\$38.87	\$10.00	\$14.18	\$0.00	\$63.05
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2013	\$40.15	\$10.00	\$13.55	\$0.00	\$63.70
	05/01/2014	\$40.29	\$10.00	\$14.18	\$0.00	\$64.47
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2013	\$21.10	\$10.00	\$13.55	\$0.00	\$44.65
	05/01/2014	\$20.92	\$10.00	\$14.18	\$0.00	\$45.10
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 96</i>	12/01/2013	\$37.87	\$7.66	\$12.69	\$0.00	\$58.22
	06/01/2014	\$38.12	\$7.91	\$12.86	\$0.00	\$58.89
	12/01/2014	\$38.37	\$8.16	\$13.12	\$0.00	\$59.65
	06/01/2015	\$38.87	\$8.16	\$13.62	\$0.00	\$60.65
	12/01/2015	\$39.37	\$8.41	\$13.68	\$0.00	\$61.46
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINT/COMMISSIONING <i>ELECTRICIANS LOCAL 96</i>	12/01/2013	\$37.87	\$7.66	\$12.69	\$0.00	\$58.22
	06/01/2014	\$38.12	\$7.91	\$12.86	\$0.00	\$58.89
	12/01/2014	\$38.37	\$8.16	\$13.12	\$0.00	\$59.65
	06/01/2015	\$38.87	\$8.16	\$13.62	\$0.00	\$60.65
	12/01/2015	\$39.37	\$8.41	\$13.68	\$0.00	\$61.46
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$33.76	\$10.00	\$14.18	\$0.00	\$57.94
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER <i>LABORERS - ZONE 2</i>	12/01/2013	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	06/01/2014	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	12/01/2014	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	06/01/2015	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	12/01/2015	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	06/01/2016	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
	12/01/2016	\$20.50	\$7.30	\$12.10	\$0.00	\$39.90
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE 1</i>	03/01/2014	\$39.87	\$9.80	\$16.96	\$0.00	\$66.63

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - FLOORCOVERER - Local 2168 Zone I

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.94	\$9.80	\$1.79	\$0.00	\$31.53
2	55	\$21.93	\$9.80	\$1.79	\$0.00	\$33.52
3	60	\$23.92	\$9.80	\$11.59	\$0.00	\$45.31
4	65	\$25.92	\$9.80	\$11.59	\$0.00	\$47.31
5	70	\$27.91	\$9.80	\$13.38	\$0.00	\$51.09
6	75	\$29.90	\$9.80	\$13.38	\$0.00	\$53.08
7	80	\$31.90	\$9.80	\$15.17	\$0.00	\$56.87
8	85	\$33.89	\$9.80	\$15.17	\$0.00	\$58.86

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	01/01/2014	\$35.41	\$7.85	\$16.10	\$0.00	\$59.36
	07/01/2014	\$36.26	\$7.85	\$16.10	\$0.00	\$60.21
	01/01/2015	\$37.16	\$7.85	\$16.10	\$0.00	\$61.11
	07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
	01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
	07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.71	\$7.85	\$0.00	\$0.00	\$25.56
2	55	\$19.48	\$7.85	\$3.66	\$0.00	\$30.99
3	60	\$21.25	\$7.85	\$3.99	\$0.00	\$33.09
4	65	\$23.02	\$7.85	\$4.32	\$0.00	\$35.19
5	70	\$24.79	\$7.85	\$14.11	\$0.00	\$46.75
6	75	\$26.56	\$7.85	\$14.44	\$0.00	\$48.85
7	80	\$28.33	\$7.85	\$14.77	\$0.00	\$50.95
8	90	\$31.87	\$7.85	\$15.44	\$0.00	\$55.16

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.13	\$7.85	\$0.00	\$0.00	\$25.98
2	55	\$19.94	\$7.85	\$3.66	\$0.00	\$31.45
3	60	\$21.76	\$7.85	\$3.99	\$0.00	\$33.60
4	65	\$23.57	\$7.85	\$4.32	\$0.00	\$35.74
5	70	\$25.38	\$7.85	\$14.11	\$0.00	\$47.34
6	75	\$27.20	\$7.85	\$14.44	\$0.00	\$49.49
7	80	\$29.01	\$7.85	\$14.77	\$0.00	\$51.63
8	90	\$32.63	\$7.85	\$15.44	\$0.00	\$55.92

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - OPERATING ENGINEERS - Local 4

Effective Date - 12/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.27	\$10.00	\$0.00	\$0.00	\$32.27
2	60	\$24.29	\$10.00	\$14.18	\$0.00	\$48.47
3	65	\$26.32	\$10.00	\$14.18	\$0.00	\$50.50
4	70	\$28.34	\$10.00	\$14.18	\$0.00	\$52.52
5	75	\$30.37	\$10.00	\$14.18	\$0.00	\$54.55
6	80	\$32.39	\$10.00	\$14.18	\$0.00	\$56.57
7	85	\$34.42	\$10.00	\$14.18	\$0.00	\$58.60
8	90	\$36.44	\$10.00	\$14.18	\$0.00	\$60.62

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2014	\$42.76	\$9.82	\$19.74	\$2.17	\$74.49
	08/01/2014	\$43.61	\$9.82	\$19.74	\$2.17	\$75.34
	02/01/2015	\$44.51	\$9.82	\$19.74	\$2.17	\$76.24
	08/01/2015	\$45.51	\$9.82	\$19.74	\$2.17	\$77.24
	02/01/2016	\$46.51	\$9.82	\$19.74	\$2.17	\$78.24
	08/01/2016	\$47.66	\$9.82	\$19.74	\$2.17	\$79.39
	02/01/2017	\$48.76	\$9.82	\$19.74	\$2.17	\$80.49
	08/01/2017	\$49.86	\$9.82	\$19.74	\$2.17	\$81.59
	02/01/2018	\$51.01	\$9.82	\$19.74	\$2.17	\$82.74

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 96</i>	12/01/2013	\$37.87	\$7.66	\$12.69	\$0.00	\$58.22
	06/01/2014	\$38.12	\$7.91	\$12.86	\$0.00	\$58.89
	12/01/2014	\$38.37	\$8.16	\$13.12	\$0.00	\$59.65
	06/01/2015	\$38.87	\$8.16	\$13.62	\$0.00	\$60.65
	12/01/2015	\$39.37	\$8.41	\$13.68	\$0.00	\$61.46

For apprentice rates see "Apprentice- ELECTRICIAN"

HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2014	\$42.76	\$9.82	\$19.74	\$2.17	\$74.49
	08/01/2014	\$43.61	\$9.82	\$19.74	\$2.17	\$75.34
	02/01/2015	\$44.51	\$9.82	\$19.74	\$2.17	\$76.24
	08/01/2015	\$45.51	\$9.82	\$19.74	\$2.17	\$77.24
	02/01/2016	\$46.51	\$9.82	\$19.74	\$2.17	\$78.24
	08/01/2016	\$47.66	\$9.82	\$19.74	\$2.17	\$79.39
	02/01/2017	\$48.76	\$9.82	\$19.74	\$2.17	\$80.49
	08/01/2017	\$49.86	\$9.82	\$19.74	\$2.17	\$81.59
	02/01/2018	\$51.01	\$9.82	\$19.74	\$2.17	\$82.74

For apprentice rates see "Apprentice- SHEET METAL WORKER"

HVAC (TESTING AND BALANCING - WATER) <i>PIPEFITTERS LOCAL 537</i>	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
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For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC MECHANIC PIPEFITTERS LOCAL 537	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS LABORERS - ZONE 2	12/01/2013	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	06/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	12/01/2014	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	06/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	12/01/2015	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	06/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
	12/01/2016	\$33.85	\$7.30	\$12.10	\$0.00	\$53.25
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	09/01/2013	\$42.11	\$10.95	\$12.10	\$0.00	\$65.16
	09/01/2014	\$44.11	\$10.95	\$12.10	\$0.00	\$67.16

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

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.06	\$10.95	\$9.00	\$0.00	\$41.01
2	60	\$25.27	\$10.95	\$9.62	\$0.00	\$45.84
3	70	\$29.48	\$10.95	\$10.24	\$0.00	\$50.67
4	80	\$33.69	\$10.95	\$10.86	\$0.00	\$55.50

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.06	\$10.95	\$9.00	\$0.00	\$42.01
2	60	\$26.47	\$10.95	\$9.62	\$0.00	\$47.04
3	70	\$30.88	\$10.95	\$10.24	\$0.00	\$52.07
4	80	\$35.29	\$10.95	\$10.86	\$0.00	\$57.10

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 (WORCESTER AREA)	03/16/2014	\$40.89	\$7.70	\$19.25	\$0.00	\$67.84
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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - IRONWORKER - Local 7 Worcester

Effective Date - 03/16/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.53	\$7.70	\$19.25	\$0.00	\$51.48
2	70	\$28.62	\$7.70	\$19.25	\$0.00	\$55.57
3	75	\$30.67	\$7.70	\$19.25	\$0.00	\$57.62
4	80	\$32.71	\$7.70	\$19.25	\$0.00	\$59.66
5	85	\$34.76	\$7.70	\$19.25	\$0.00	\$61.71
6	90	\$36.80	\$7.70	\$19.25	\$0.00	\$63.75

Notes:

Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:

JACKHAMMER & PAVING BREAKER OPERATOR LABORERS - ZONE 2	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

LABORER LABORERS - ZONE 2	12/01/2013	\$29.85	\$7.30	\$12.10	\$0.00	\$49.25
	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - LABORER - Zone 2

Effective Date - 12/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$17.91	\$7.30	\$12.10	\$0.00	\$37.31
2	70	\$20.90	\$7.30	\$12.10	\$0.00	\$40.30
3	80	\$23.88	\$7.30	\$12.10	\$0.00	\$43.28
4	90	\$26.87	\$7.30	\$12.10	\$0.00	\$46.27

Effective Date - 06/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.21	\$7.30	\$12.10	\$0.00	\$37.61
2	70	\$21.25	\$7.30	\$12.10	\$0.00	\$40.65
3	80	\$24.28	\$7.30	\$12.10	\$0.00	\$43.68
4	90	\$27.32	\$7.30	\$12.10	\$0.00	\$46.72

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER LABORERS - ZONE 2	12/01/2013	\$29.85	\$7.30	\$12.10	\$0.00	\$49.25
	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER LABORERS - ZONE 2	12/01/2013	\$29.85	\$7.30	\$12.10	\$0.00	\$49.25
	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER LABORERS - ZONE 2	12/01/2013	\$30.05	\$7.30	\$12.05	\$0.00	\$49.40
	06/01/2014	\$30.55	\$7.30	\$12.05	\$0.00	\$49.90
	12/01/2014	\$31.05	\$7.30	\$12.05	\$0.00	\$50.40
	06/01/2015	\$31.55	\$7.30	\$12.05	\$0.00	\$50.90
	12/01/2015	\$32.05	\$7.30	\$12.05	\$0.00	\$51.40

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>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	12/01/2013	\$29.85	\$7.30	\$12.10	\$0.00	\$49.25
	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	12/01/2013	\$29.85	\$7.30	\$12.10	\$0.00	\$49.25
	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2014	\$36.66	\$10.18	\$16.83	\$0.00	\$63.67
	08/01/2014	\$37.37	\$10.18	\$16.90	\$0.00	\$64.45
	02/01/2015	\$37.82	\$10.18	\$16.90	\$0.00	\$64.90
	08/01/2015	\$38.53	\$10.18	\$16.97	\$0.00	\$65.68
	02/01/2016	\$38.98	\$10.18	\$16.97	\$0.00	\$66.13
	08/01/2016	\$39.68	\$10.18	\$17.05	\$0.00	\$66.91
	02/01/2017	\$40.14	\$10.18	\$17.05	\$0.00	\$67.37

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.33	\$10.18	\$16.83	\$0.00	\$45.34
2	60	\$22.00	\$10.18	\$16.83	\$0.00	\$49.01
3	70	\$25.66	\$10.18	\$16.83	\$0.00	\$52.67
4	80	\$29.33	\$10.18	\$16.83	\$0.00	\$56.34
5	90	\$32.99	\$10.18	\$16.83	\$0.00	\$60.00

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.69	\$10.18	\$16.90	\$0.00	\$45.77
2	60	\$22.42	\$10.18	\$16.90	\$0.00	\$49.50
3	70	\$26.16	\$10.18	\$16.90	\$0.00	\$53.24
4	80	\$29.90	\$10.18	\$16.90	\$0.00	\$56.98
5	90	\$33.63	\$10.18	\$16.90	\$0.00	\$60.71

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH	02/01/2014	\$48.10	\$10.18	\$18.15	\$0.00	\$76.43
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2014	\$49.00	\$10.18	\$18.22	\$0.00	\$77.40
	02/01/2015	\$49.56	\$10.18	\$18.22	\$0.00	\$77.96
	08/01/2015	\$50.46	\$10.18	\$18.29	\$0.00	\$78.93
	02/01/2016	\$51.03	\$10.18	\$18.29	\$0.00	\$79.50
	08/01/2016	\$51.93	\$10.18	\$18.37	\$0.00	\$80.48
	02/01/2017	\$52.50	\$10.18	\$18.37	\$0.00	\$81.05

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.05	\$10.18	\$18.15	\$0.00	\$52.38
2	60	\$28.86	\$10.18	\$18.15	\$0.00	\$57.19
3	70	\$33.67	\$10.18	\$18.15	\$0.00	\$62.00
4	80	\$38.48	\$10.18	\$18.15	\$0.00	\$66.81
5	90	\$43.29	\$10.18	\$18.15	\$0.00	\$71.62

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.50	\$10.18	\$18.22	\$0.00	\$52.90
2	60	\$29.40	\$10.18	\$18.22	\$0.00	\$57.80
3	70	\$34.30	\$10.18	\$18.22	\$0.00	\$62.70
4	80	\$39.20	\$10.18	\$18.22	\$0.00	\$67.60
5	90	\$44.10	\$10.18	\$18.22	\$0.00	\$72.50

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 2) <i>MILLWRIGHTS LOCAL 1121 - Zone 2</i>	04/01/2014	\$33.16	\$9.80	\$16.21	\$0.00	\$59.17
	10/01/2014	\$33.92	\$9.80	\$16.21	\$0.00	\$59.93
	04/01/2015	\$34.69	\$9.80	\$16.21	\$0.00	\$60.70

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MILLWRIGHT - Local 1121 Zone 2

Effective Date - 04/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$18.24	\$9.80	\$4.48	\$0.00	\$32.52
2	65	\$21.55	\$9.80	\$13.36	\$0.00	\$44.71
3	75	\$24.87	\$9.80	\$14.18	\$0.00	\$48.85
4	85	\$28.19	\$9.80	\$14.99	\$0.00	\$52.98

Effective Date - 10/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$18.66	\$9.80	\$4.48	\$0.00	\$32.94
2	65	\$22.05	\$9.80	\$13.36	\$0.00	\$45.21
3	75	\$25.44	\$9.80	\$14.18	\$0.00	\$49.42
4	85	\$28.83	\$9.80	\$14.99	\$0.00	\$53.62

Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER LABORERS - ZONE 2	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

OILER (OTHER THAN TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2013	\$20.96	\$10.00	\$14.18	\$0.00	\$45.14
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2013	\$24.43	\$10.00	\$14.18	\$0.00	\$48.61
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 - ZONE 2	01/01/2014	\$45.91	\$7.85	\$16.10	\$0.00	\$69.86
	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.96	\$7.85	\$0.00	\$0.00	\$30.81
2	55	\$25.25	\$7.85	\$3.66	\$0.00	\$36.76
3	60	\$27.55	\$7.85	\$3.99	\$0.00	\$39.39
4	65	\$29.84	\$7.85	\$4.32	\$0.00	\$42.01
5	70	\$32.14	\$7.85	\$14.11	\$0.00	\$54.10
6	75	\$34.43	\$7.85	\$14.44	\$0.00	\$56.72
7	80	\$36.73	\$7.85	\$14.77	\$0.00	\$59.35
8	90	\$41.32	\$7.85	\$15.44	\$0.00	\$64.61

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2014	\$36.81	\$7.85	\$16.10	\$0.00	\$60.76
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2014	\$37.66	\$7.85	\$16.10	\$0.00	\$61.61
	01/01/2015	\$38.56	\$7.85	\$16.10	\$0.00	\$62.51
	07/01/2015	\$39.46	\$7.85	\$16.10	\$0.00	\$63.41
	01/01/2016	\$40.41	\$7.85	\$16.10	\$0.00	\$64.36
	07/01/2016	\$41.36	\$7.85	\$16.10	\$0.00	\$65.31
	01/01/2017	\$42.31	\$7.85	\$16.10	\$0.00	\$66.26

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.41	\$7.85	\$0.00	\$0.00	\$26.26
2	55	\$20.25	\$7.85	\$3.66	\$0.00	\$31.76
3	60	\$22.09	\$7.85	\$3.99	\$0.00	\$33.93
4	65	\$23.93	\$7.85	\$4.32	\$0.00	\$36.10
5	70	\$25.77	\$7.85	\$14.11	\$0.00	\$47.73
6	75	\$27.61	\$7.85	\$14.44	\$0.00	\$49.90
7	80	\$29.45	\$7.85	\$14.77	\$0.00	\$52.07
8	90	\$33.13	\$7.85	\$15.44	\$0.00	\$56.42

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.83	\$7.85	\$0.00	\$0.00	\$26.68
2	55	\$20.71	\$7.85	\$3.66	\$0.00	\$32.22
3	60	\$22.60	\$7.85	\$3.99	\$0.00	\$34.44
4	65	\$24.48	\$7.85	\$4.32	\$0.00	\$36.65
5	70	\$26.36	\$7.85	\$14.11	\$0.00	\$48.32
6	75	\$28.25	\$7.85	\$14.44	\$0.00	\$50.54
7	80	\$30.13	\$7.85	\$14.77	\$0.00	\$52.75
8	90	\$33.89	\$7.85	\$15.44	\$0.00	\$57.18

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2014	\$34.87	\$7.85	\$16.10	\$0.00	\$58.82
PAINTERS LOCAL 35 - ZONE 2	07/01/2014	\$35.72	\$7.85	\$16.10	\$0.00	\$59.67
	01/01/2015	\$36.62	\$7.85	\$16.10	\$0.00	\$60.57
	07/01/2015	\$37.52	\$7.85	\$16.10	\$0.00	\$61.47
	01/01/2016	\$38.47	\$7.85	\$16.10	\$0.00	\$62.42
	07/01/2016	\$39.42	\$7.85	\$16.10	\$0.00	\$63.37
	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

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

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.44	\$7.85	\$0.00	\$0.00	\$25.29
2	55	\$19.18	\$7.85	\$3.66	\$0.00	\$30.69
3	60	\$20.92	\$7.85	\$3.99	\$0.00	\$32.76
4	65	\$22.67	\$7.85	\$4.32	\$0.00	\$34.84
5	70	\$24.41	\$7.85	\$14.11	\$0.00	\$46.37
6	75	\$26.15	\$7.85	\$14.44	\$0.00	\$48.44
7	80	\$27.90	\$7.85	\$14.77	\$0.00	\$50.52
8	90	\$31.38	\$7.85	\$15.44	\$0.00	\$54.67

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.86	\$7.85	\$0.00	\$0.00	\$25.71
2	55	\$19.65	\$7.85	\$3.66	\$0.00	\$31.16
3	60	\$21.43	\$7.85	\$3.99	\$0.00	\$33.27
4	65	\$23.22	\$7.85	\$4.32	\$0.00	\$35.39
5	70	\$25.00	\$7.85	\$14.11	\$0.00	\$46.96
6	75	\$26.79	\$7.85	\$14.44	\$0.00	\$49.08
7	80	\$28.58	\$7.85	\$14.77	\$0.00	\$51.20
8	90	\$32.15	\$7.85	\$15.44	\$0.00	\$55.44

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (TRAFFIC MARKINGS)	12/01/2013	\$29.85	\$7.30	\$12.10	\$0.00	\$49.25
LABORERS - ZONE 2	06/01/2014	\$30.35	\$7.30	\$12.10	\$0.00	\$49.75
	12/01/2014	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2015	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2015	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2016	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2016	\$33.10	\$7.30	\$12.10	\$0.00	\$52.50

For Apprentice rates see "Apprentice- LABORER"

PAINTER / TAPER (BRUSH, NEW) *	01/01/2014	\$35.41	\$7.85	\$16.10	\$0.00	\$59.36
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2014	\$36.26	\$7.85	\$16.10	\$0.00	\$60.21
	01/01/2015	\$37.16	\$7.85	\$16.10	\$0.00	\$61.11
	07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
	01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
	07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.71	\$7.85	\$0.00	\$0.00	\$25.56
2	55	\$19.48	\$7.85	\$3.66	\$0.00	\$30.99
3	60	\$21.25	\$7.85	\$3.99	\$0.00	\$33.09
4	65	\$23.02	\$7.85	\$4.32	\$0.00	\$35.19
5	70	\$24.79	\$7.85	\$14.11	\$0.00	\$46.75
6	75	\$26.56	\$7.85	\$14.44	\$0.00	\$48.85
7	80	\$28.33	\$7.85	\$14.77	\$0.00	\$50.95
8	90	\$31.87	\$7.85	\$15.44	\$0.00	\$55.16

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.13	\$7.85	\$0.00	\$0.00	\$25.98
2	55	\$19.94	\$7.85	\$3.66	\$0.00	\$31.45
3	60	\$21.76	\$7.85	\$3.99	\$0.00	\$33.60
4	65	\$23.57	\$7.85	\$4.32	\$0.00	\$35.74
5	70	\$25.38	\$7.85	\$14.11	\$0.00	\$47.34
6	75	\$27.20	\$7.85	\$14.44	\$0.00	\$49.49
7	80	\$29.01	\$7.85	\$14.77	\$0.00	\$51.63
8	90	\$32.63	\$7.85	\$15.44	\$0.00	\$55.92

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)	01/01/2014	\$33.47	\$7.85	\$16.10	\$0.00	\$57.42
PAINTERS LOCAL 35 - ZONE 2	07/01/2014	\$34.32	\$7.85	\$16.10	\$0.00	\$58.27
	01/01/2015	\$35.22	\$7.85	\$16.10	\$0.00	\$59.17
	07/01/2015	\$36.12	\$7.85	\$16.10	\$0.00	\$60.07
	01/01/2016	\$37.07	\$7.85	\$16.10	\$0.00	\$61.02
	07/01/2016	\$38.02	\$7.85	\$16.10	\$0.00	\$61.97
	01/01/2017	\$38.97	\$7.85	\$16.10	\$0.00	\$62.92

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.74	\$7.85	\$0.00	\$0.00	\$24.59
2	55	\$18.41	\$7.85	\$3.66	\$0.00	\$29.92
3	60	\$20.08	\$7.85	\$3.99	\$0.00	\$31.92
4	65	\$21.76	\$7.85	\$4.32	\$0.00	\$33.93
5	70	\$23.43	\$7.85	\$14.11	\$0.00	\$45.39
6	75	\$25.10	\$7.85	\$14.44	\$0.00	\$47.39
7	80	\$26.78	\$7.85	\$14.77	\$0.00	\$49.40
8	90	\$30.12	\$7.85	\$15.44	\$0.00	\$53.41

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.16	\$7.85	\$0.00	\$0.00	\$25.01
2	55	\$18.88	\$7.85	\$3.66	\$0.00	\$30.39
3	60	\$20.59	\$7.85	\$3.99	\$0.00	\$32.43
4	65	\$22.31	\$7.85	\$4.32	\$0.00	\$34.48
5	70	\$24.02	\$7.85	\$14.11	\$0.00	\$45.98
6	75	\$25.74	\$7.85	\$14.44	\$0.00	\$48.03
7	80	\$27.46	\$7.85	\$14.77	\$0.00	\$50.08
8	90	\$30.89	\$7.85	\$15.44	\$0.00	\$54.18

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PANEL & PICKUP TRUCKS DRIVER <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2012	\$30.28	\$9.07	\$8.00	\$0.00	\$47.35
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$40.10	\$9.80	\$18.17	\$0.00	\$68.07
	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
PILE DRIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$40.10	\$9.80	\$18.17	\$0.00	\$68.07
	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PILE DRIVER - Local 56 Zone 1

Effective Date - 08/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.05	\$9.80	\$18.17	\$0.00	\$48.02
2	60	\$24.06	\$9.80	\$18.17	\$0.00	\$52.03
3	70	\$28.07	\$9.80	\$18.17	\$0.00	\$56.04
4	75	\$30.08	\$9.80	\$18.17	\$0.00	\$58.05
5	80	\$32.08	\$9.80	\$18.17	\$0.00	\$60.05
6	80	\$32.08	\$9.80	\$18.17	\$0.00	\$60.05
7	90	\$36.09	\$9.80	\$18.17	\$0.00	\$64.06
8	90	\$36.09	\$9.80	\$18.17	\$0.00	\$64.06

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.80	\$9.80	\$18.17	\$0.00	\$48.77
2	60	\$24.96	\$9.80	\$18.17	\$0.00	\$52.93
3	70	\$29.12	\$9.80	\$18.17	\$0.00	\$57.09
4	75	\$31.20	\$9.80	\$18.17	\$0.00	\$59.17
5	80	\$33.28	\$9.80	\$18.17	\$0.00	\$61.25
6	80	\$33.28	\$9.80	\$18.17	\$0.00	\$61.25
7	90	\$37.44	\$9.80	\$18.17	\$0.00	\$65.41
8	90	\$37.44	\$9.80	\$18.17	\$0.00	\$65.41

Notes:

Apprentice to Journeyworker Ratio:1:3

PIPEFITTER & STEAMFITTER PIPEFITTERS LOCAL 537	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
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Apprentice - PIPEFITTER - Local 537

Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.74	\$8.75	\$6.50	\$0.00	\$34.99
2	45	\$22.20	\$8.75	\$14.39	\$0.00	\$45.34
3	60	\$29.60	\$8.75	\$14.39	\$0.00	\$52.74
4	70	\$34.54	\$8.75	\$14.39	\$0.00	\$57.68
5	80	\$39.47	\$8.75	\$14.39	\$0.00	\$62.61

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 LABORERS - ZONE 2	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

PLUMBERS & GASFITTERS PLUMBERS & GASFITTERS LOCAL 12	03/01/2014	\$49.41	\$9.82	\$14.29	\$0.00	\$73.52
	09/01/2014	\$50.41	\$9.82	\$14.29	\$0.00	\$74.52
	03/01/2015	\$51.41	\$9.82	\$14.29	\$0.00	\$75.52
	09/01/2015	\$52.41	\$9.82	\$14.29	\$0.00	\$76.52
	03/01/2016	\$53.56	\$9.82	\$14.29	\$0.00	\$77.67
	09/01/2016	\$54.61	\$9.82	\$14.29	\$0.00	\$78.72
	03/01/2017	\$55.61	\$9.82	\$14.29	\$0.00	\$79.72

Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$17.29	\$9.82	\$5.33	\$0.00	\$32.44
2	40	\$19.76	\$9.82	\$6.02	\$0.00	\$35.60
3	55	\$27.18	\$9.82	\$8.08	\$0.00	\$45.08
4	65	\$32.12	\$9.82	\$9.47	\$0.00	\$51.41
5	75	\$37.06	\$9.82	\$10.85	\$0.00	\$57.73

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$17.64	\$9.82	\$5.33	\$0.00	\$32.79
2	40	\$20.16	\$9.82	\$6.02	\$0.00	\$36.00
3	55	\$27.73	\$9.82	\$8.08	\$0.00	\$45.63
4	65	\$32.77	\$9.82	\$9.47	\$0.00	\$52.06
5	75	\$37.81	\$9.82	\$10.85	\$0.00	\$58.48

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$54.58 Step5 with lic\$60.90

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) PIPEFITTERS LOCAL 537	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
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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>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.85	\$7.30	\$12.10	\$0.00	\$50.25
	06/01/2014	\$31.35	\$7.30	\$12.10	\$0.00	\$50.75
	12/01/2014	\$31.85	\$7.30	\$12.10	\$0.00	\$51.25
	06/01/2015	\$32.35	\$7.30	\$12.10	\$0.00	\$51.75
	12/01/2015	\$32.85	\$7.30	\$12.10	\$0.00	\$52.25
	06/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75
	12/01/2016	\$34.10	\$7.30	\$12.10	\$0.00	\$53.50
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 170</i>	05/01/2010	\$22.04	\$6.50	\$5.44	\$0.00	\$33.98
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2011	\$24.24	\$8.67	\$15.51	\$0.00	\$48.42
RESIDENTIAL WOOD FRAME CARPENTER ** ** 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>	05/01/2011	\$24.24	\$6.34	\$6.23	\$0.00	\$36.81
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 - 05/01/2011

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

Notes:

Apprentice to Journeyworker Ratio:1:5

RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
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For apprentice rates see "Apprentice- OPERATING ENGINEERS"

ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) <i>ROOFERS LOCAL 33</i>	02/01/2014	\$39.21	\$10.50	\$10.70	\$0.00	\$60.41
	08/01/2014	\$40.11	\$10.50	\$10.70	\$0.00	\$61.31
	02/01/2015	\$41.01	\$10.50	\$10.70	\$0.00	\$62.21
	08/01/2015	\$41.91	\$10.50	\$10.70	\$0.00	\$63.11
	02/01/2016	\$42.81	\$10.50	\$10.70	\$0.00	\$64.01

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.61	\$10.50	\$3.38	\$0.00	\$33.49
2	60	\$23.53	\$10.50	\$10.70	\$0.00	\$44.73
3	65	\$25.49	\$10.50	\$10.70	\$0.00	\$46.69
4	75	\$29.41	\$10.50	\$10.70	\$0.00	\$50.61
5	85	\$33.33	\$10.50	\$10.70	\$0.00	\$54.53

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.06	\$10.50	\$3.38	\$0.00	\$33.94
2	60	\$24.07	\$10.50	\$10.70	\$0.00	\$45.27
3	65	\$26.07	\$10.50	\$10.70	\$0.00	\$47.27
4	75	\$30.08	\$10.50	\$10.70	\$0.00	\$51.28
5	85	\$34.09	\$10.50	\$10.70	\$0.00	\$55.29

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

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE	02/01/2014	\$39.46	\$10.50	\$10.70	\$0.00	\$60.66
ROOFERS LOCAL 33	08/01/2014	\$40.36	\$10.50	\$10.70	\$0.00	\$61.56
	02/01/2015	\$41.26	\$10.50	\$10.70	\$0.00	\$62.46
	08/01/2015	\$42.16	\$10.50	\$10.70	\$0.00	\$63.36
	02/01/2016	\$43.06	\$10.50	\$10.70	\$0.00	\$64.26

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER	02/01/2014	\$42.76	\$9.82	\$19.74	\$2.17	\$74.49
SHEETMETAL WORKERS LOCAL 17 - A	08/01/2014	\$43.61	\$9.82	\$19.74	\$2.17	\$75.34
	02/01/2015	\$44.51	\$9.82	\$19.74	\$2.17	\$76.24
	08/01/2015	\$45.51	\$9.82	\$19.74	\$2.17	\$77.24
	02/01/2016	\$46.51	\$9.82	\$19.74	\$2.17	\$78.24
	08/01/2016	\$47.66	\$9.82	\$19.74	\$2.17	\$79.39
	02/01/2017	\$48.76	\$9.82	\$19.74	\$2.17	\$80.49
	08/01/2017	\$49.86	\$9.82	\$19.74	\$2.17	\$81.59
	02/01/2018	\$51.01	\$9.82	\$19.74	\$2.17	\$82.74

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SHEET METAL WORKER - Local 17-A

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.10	\$9.82	\$4.28	\$0.00	\$31.20
2	40	\$17.10	\$9.82	\$4.28	\$0.00	\$31.20
3	45	\$19.24	\$9.82	\$8.70	\$1.13	\$38.89
4	45	\$19.24	\$9.82	\$8.70	\$1.13	\$38.89
5	50	\$21.38	\$9.82	\$9.49	\$1.22	\$41.91
6	50	\$21.38	\$9.82	\$9.74	\$1.23	\$42.17
7	60	\$25.66	\$9.82	\$11.05	\$1.40	\$47.93
8	65	\$27.79	\$9.82	\$11.84	\$1.48	\$50.93
9	75	\$32.07	\$9.82	\$13.41	\$1.66	\$56.96
10	85	\$36.35	\$9.82	\$14.48	\$1.82	\$62.47

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.44	\$9.82	\$4.28	\$0.00	\$31.54
2	40	\$17.44	\$9.82	\$4.28	\$0.00	\$31.54
3	45	\$19.62	\$9.82	\$8.70	\$1.13	\$39.27
4	45	\$19.62	\$9.82	\$8.70	\$1.13	\$39.27
5	50	\$21.81	\$9.82	\$9.49	\$1.22	\$42.34
6	50	\$21.81	\$9.82	\$9.74	\$1.23	\$42.60
7	60	\$26.17	\$9.82	\$11.05	\$1.40	\$48.44
8	65	\$28.35	\$9.82	\$11.84	\$1.48	\$51.49
9	75	\$32.71	\$9.82	\$13.41	\$1.66	\$57.60
10	85	\$37.07	\$9.82	\$14.48	\$1.82	\$63.19

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
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Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SIGN ERECTOR - Local 35 Zone 2

Effective Date - 06/01/2013

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

Notes:
Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

SPECIALIZED EARTH MOVING EQUIP < 35 TONS		12/01/2013	\$31.24	\$9.41	\$8.80	\$0.00	\$49.45
<i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>		06/01/2014	\$31.59	\$9.41	\$8.80	\$0.00	\$49.80
		08/01/2014	\$31.59	\$9.91	\$8.80	\$0.00	\$50.30
		12/01/2014	\$31.59	\$9.91	\$9.33	\$0.00	\$50.83
		06/01/2015	\$31.94	\$9.91	\$9.33	\$0.00	\$51.18
		08/01/2015	\$31.94	\$10.41	\$9.33	\$0.00	\$51.68
		12/01/2015	\$31.94	\$10.41	\$10.08	\$0.00	\$52.43
		06/01/2016	\$32.44	\$10.41	\$10.08	\$0.00	\$52.93
		08/01/2016	\$32.44	\$10.91	\$10.08	\$0.00	\$53.43
		12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
SPECIALIZED EARTH MOVING EQUIP > 35 TONS		12/01/2013	\$31.53	\$9.41	\$8.80	\$0.00	\$49.74
<i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>		06/01/2014	\$31.88	\$9.41	\$8.80	\$0.00	\$50.09
		08/01/2014	\$31.88	\$9.91	\$8.80	\$0.00	\$50.59
		12/01/2014	\$31.88	\$9.91	\$9.33	\$0.00	\$51.12
		06/01/2015	\$32.23	\$9.91	\$9.33	\$0.00	\$51.47
		08/01/2015	\$32.23	\$10.41	\$9.33	\$0.00	\$51.97
		12/01/2015	\$32.23	\$10.41	\$10.08	\$0.00	\$52.72
		06/01/2016	\$32.73	\$10.41	\$10.08	\$0.00	\$53.22
		08/01/2016	\$32.73	\$10.91	\$10.08	\$0.00	\$53.72
		12/01/2016	\$32.73	\$10.91	\$10.89	\$0.00	\$54.53

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPRINKLER FITTER	03/01/2014	\$53.58	\$8.42	\$13.60	\$0.00	\$75.60
<i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	10/01/2014	\$54.73	\$8.42	\$13.60	\$0.00	\$76.75
	01/01/2015	\$54.73	\$8.42	\$13.75	\$0.00	\$76.90
	03/01/2015	\$55.73	\$8.42	\$13.75	\$0.00	\$77.90
	10/01/2015	\$56.88	\$8.42	\$13.75	\$0.00	\$79.05
	01/01/2016	\$56.88	\$8.67	\$13.90	\$0.00	\$79.45
	03/01/2016	\$57.88	\$8.67	\$13.90	\$0.00	\$80.45
	10/01/2016	\$59.03	\$8.67	\$13.90	\$0.00	\$81.60
	03/01/2017	\$60.03	\$8.67	\$13.90	\$0.00	\$82.60

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

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$18.75	\$8.42	\$8.25	\$0.00	\$35.42
2	40	\$21.43	\$8.42	\$8.25	\$0.00	\$38.10
3	45	\$24.11	\$8.42	\$8.25	\$0.00	\$40.78
4	50	\$26.79	\$8.42	\$8.25	\$0.00	\$43.46
5	55	\$29.47	\$8.42	\$8.25	\$0.00	\$46.14
6	60	\$32.15	\$8.42	\$8.25	\$0.00	\$48.82
7	65	\$34.83	\$8.42	\$8.25	\$0.00	\$51.50
8	70	\$37.51	\$8.42	\$8.25	\$0.00	\$54.18
9	75	\$40.19	\$8.42	\$8.25	\$0.00	\$56.86
10	80	\$42.86	\$8.42	\$8.25	\$0.00	\$59.53

Effective Date - 10/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.16	\$8.42	\$8.25	\$0.00	\$35.83
2	40	\$21.89	\$8.42	\$8.25	\$0.00	\$38.56
3	45	\$24.63	\$8.42	\$8.25	\$0.00	\$41.30
4	50	\$27.37	\$8.42	\$8.25	\$0.00	\$44.04
5	55	\$30.10	\$8.42	\$8.25	\$0.00	\$46.77
6	60	\$32.84	\$8.42	\$8.25	\$0.00	\$49.51
7	65	\$35.57	\$8.42	\$8.25	\$0.00	\$52.24
8	70	\$38.31	\$8.42	\$8.25	\$0.00	\$54.98
9	75	\$41.05	\$8.42	\$8.25	\$0.00	\$57.72
10	80	\$43.78	\$8.42	\$8.25	\$0.00	\$60.45

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	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
<i>OPERATING ENGINEERS LOCAL 4</i>						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
<i>OPERATING ENGINEERS LOCAL 4</i>						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2014	\$47.00	\$10.18	\$18.15	\$0.00	\$75.33
	08/01/2014	\$47.90	\$10.18	\$18.22	\$0.00	\$76.30
	02/01/2015	\$48.46	\$10.18	\$18.22	\$0.00	\$76.86
	08/01/2015	\$49.36	\$10.18	\$18.29	\$0.00	\$77.83
	02/01/2016	\$49.93	\$10.18	\$18.29	\$0.00	\$78.40
	08/01/2016	\$50.83	\$10.18	\$18.37	\$0.00	\$79.38
	02/01/2017	\$51.40	\$10.18	\$18.37	\$0.00	\$79.95

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.50	\$10.18	\$18.15	\$0.00	\$51.83
2	60	\$28.20	\$10.18	\$18.15	\$0.00	\$56.53
3	70	\$32.90	\$10.18	\$18.15	\$0.00	\$61.23
4	80	\$37.60	\$10.18	\$18.15	\$0.00	\$65.93
5	90	\$42.30	\$10.18	\$18.15	\$0.00	\$70.63

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.95	\$10.18	\$18.22	\$0.00	\$52.35
2	60	\$28.74	\$10.18	\$18.22	\$0.00	\$57.14
3	70	\$33.53	\$10.18	\$18.22	\$0.00	\$61.93
4	80	\$38.32	\$10.18	\$18.22	\$0.00	\$66.72
5	90	\$43.11	\$10.18	\$18.22	\$0.00	\$71.51

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER LABORERS - FOUNDATION AND MARINE	12/01/2013	\$34.70	\$7.30	\$12.90	\$0.00	\$54.90
	06/01/2014	\$35.45	\$7.30	\$12.90	\$0.00	\$55.65
	12/01/2014	\$36.20	\$7.30	\$12.90	\$0.00	\$56.40
	06/01/2015	\$36.95	\$7.30	\$12.90	\$0.00	\$57.15
	12/01/2015	\$37.70	\$7.30	\$12.90	\$0.00	\$57.90
	06/01/2016	\$38.45	\$7.30	\$12.90	\$0.00	\$58.65
	12/01/2016	\$39.45	\$7.30	\$12.90	\$0.00	\$59.65

For apprentice rates see "Apprentice- LABORER"

TEST BORING DRILLER HELPER LABORERS - FOUNDATION AND MARINE	12/01/2013	\$33.42	\$7.30	\$12.90	\$0.00	\$53.62
	06/01/2014	\$34.17	\$7.30	\$12.90	\$0.00	\$54.37
	12/01/2014	\$34.92	\$7.30	\$12.90	\$0.00	\$55.12
	06/01/2015	\$35.67	\$7.30	\$12.90	\$0.00	\$55.87
	12/01/2015	\$36.42	\$7.30	\$12.90	\$0.00	\$56.62
	06/01/2016	\$37.17	\$7.30	\$12.90	\$0.00	\$57.37
	12/01/2016	\$38.17	\$7.30	\$12.90	\$0.00	\$58.37

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2013	\$33.30	\$7.30	\$12.90	\$0.00	\$53.50
	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2013	\$31.82	\$9.41	\$8.80	\$0.00	\$50.03
	06/01/2014	\$32.17	\$9.41	\$8.80	\$0.00	\$50.38
	08/01/2014	\$32.17	\$9.91	\$8.80	\$0.00	\$50.88
	12/01/2014	\$32.17	\$9.91	\$9.33	\$0.00	\$51.41
	06/01/2015	\$32.52	\$9.91	\$9.33	\$0.00	\$51.76
	08/01/2015	\$32.52	\$10.41	\$9.33	\$0.00	\$52.26
	12/01/2015	\$32.52	\$10.41	\$10.08	\$0.00	\$53.01
	06/01/2016	\$33.02	\$10.41	\$10.08	\$0.00	\$53.51
	08/01/2016	\$33.02	\$10.91	\$10.08	\$0.00	\$54.01
12/01/2016	\$33.02	\$10.91	\$10.89	\$0.00	\$54.82	
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2013	\$45.58	\$7.30	\$13.30	\$0.00	\$66.18
	06/01/2014	\$46.33	\$7.30	\$13.30	\$0.00	\$66.93
	12/01/2014	\$47.08	\$7.30	\$13.30	\$0.00	\$67.68
	06/01/2015	\$47.83	\$7.30	\$13.30	\$0.00	\$68.43
	12/01/2015	\$48.58	\$7.30	\$13.30	\$0.00	\$69.18
	06/01/2016	\$49.33	\$7.30	\$13.30	\$0.00	\$69.93
	12/01/2016	\$50.33	\$7.30	\$13.30	\$0.00	\$70.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2013	\$47.58	\$7.30	\$13.30	\$0.00	\$68.18
	06/01/2014	\$48.33	\$7.30	\$13.30	\$0.00	\$68.93
	12/01/2014	\$49.08	\$7.30	\$13.30	\$0.00	\$69.68
	06/01/2015	\$49.83	\$7.30	\$13.30	\$0.00	\$70.43
	12/01/2015	\$50.58	\$7.30	\$13.30	\$0.00	\$71.18
	06/01/2016	\$51.33	\$7.30	\$13.30	\$0.00	\$71.93
	12/01/2016	\$52.33	\$7.30	\$13.30	\$0.00	\$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2013	\$37.65	\$7.30	\$13.30	\$0.00	\$58.25
	06/01/2014	\$38.40	\$7.30	\$13.30	\$0.00	\$59.00
	12/01/2014	\$39.15	\$7.30	\$13.30	\$0.00	\$59.75
	06/01/2015	\$39.90	\$7.30	\$13.30	\$0.00	\$60.50
	12/01/2015	\$40.65	\$7.30	\$13.30	\$0.00	\$61.25
	06/01/2016	\$41.40	\$7.30	\$13.30	\$0.00	\$62.00
	12/01/2016	\$42.40	\$7.30	\$13.30	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2013	\$39.65	\$7.30	\$13.30	\$0.00	\$60.25
	06/01/2014	\$40.40	\$7.30	\$13.30	\$0.00	\$61.00
	12/01/2014	\$41.15	\$7.30	\$13.30	\$0.00	\$61.75
	06/01/2015	\$41.90	\$7.30	\$13.30	\$0.00	\$62.50
	12/01/2015	\$42.65	\$7.30	\$13.30	\$0.00	\$63.25
	06/01/2016	\$43.40	\$7.30	\$13.30	\$0.00	\$64.00
	12/01/2016	\$44.40	\$7.30	\$13.30	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2013	\$31.24	\$9.41	\$8.80	\$0.00	\$49.45
	06/01/2014	\$31.59	\$9.41	\$8.80	\$0.00	\$49.80
	08/01/2014	\$31.59	\$9.91	\$8.80	\$0.00	\$50.30
	12/01/2014	\$31.59	\$9.91	\$9.33	\$0.00	\$50.83
	06/01/2015	\$31.94	\$9.91	\$9.33	\$0.00	\$51.18
	08/01/2015	\$31.94	\$10.41	\$9.33	\$0.00	\$51.68
	12/01/2015	\$31.94	\$10.41	\$10.08	\$0.00	\$52.43
	06/01/2016	\$32.44	\$10.41	\$10.08	\$0.00	\$52.93
	08/01/2016	\$32.44	\$10.91	\$10.08	\$0.00	\$53.43
	12/01/2016	\$32.44	\$10.91	\$10.89	\$0.00	\$54.24
VOICE-DATA-VIDEO TECHNICIAN <i>ELECTRICIANS LOCAL 96</i>	06/01/2013	\$25.86	\$7.66	\$10.09	\$0.00	\$43.61

Apprentice - VOICE-DATA-VIDEO TECHNICIAN - Local 96

Effective Date - 06/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.93	\$7.66	\$2.85	\$0.00	\$23.44
2	55	\$14.22	\$7.66	\$2.89	\$0.00	\$24.77
3	60	\$15.52	\$7.66	\$9.78	\$0.00	\$32.96
4	65	\$16.81	\$7.66	\$9.81	\$0.00	\$34.28
5	70	\$18.10	\$7.66	\$9.85	\$0.00	\$35.61
6	75	\$19.40	\$7.66	\$9.89	\$0.00	\$36.95
7	80	\$20.69	\$7.66	\$9.93	\$0.00	\$38.28
8	85	\$21.98	\$7.66	\$9.97	\$0.00	\$39.61

Notes:

Apprentice to Journeyworker Ratio:1:1

WAGON DRILL OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2013	\$30.10	\$7.30	\$12.10	\$0.00	\$49.50
	06/01/2014	\$30.60	\$7.30	\$12.10	\$0.00	\$50.00
	12/01/2014	\$31.10	\$7.30	\$12.10	\$0.00	\$50.50
	06/01/2015	\$31.60	\$7.30	\$12.10	\$0.00	\$51.00
	12/01/2015	\$32.10	\$7.30	\$12.10	\$0.00	\$51.50
	06/01/2016	\$32.60	\$7.30	\$12.10	\$0.00	\$52.00
	12/01/2016	\$33.35	\$7.30	\$12.10	\$0.00	\$52.75

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2014	\$49.41	\$9.82	\$14.29	\$0.00	\$73.52
	09/01/2014	\$50.41	\$9.82	\$14.29	\$0.00	\$74.52
	03/01/2015	\$51.41	\$9.82	\$14.29	\$0.00	\$75.52
	09/01/2015	\$52.41	\$9.82	\$14.29	\$0.00	\$76.52
	03/01/2016	\$53.56	\$9.82	\$14.29	\$0.00	\$77.67
	09/01/2016	\$54.61	\$9.82	\$14.29	\$0.00	\$78.72
	03/01/2017	\$55.61	\$9.82	\$14.29	\$0.00	\$79.72
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
Outside Electrical - East						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$25.66	\$8.70	\$4.48	\$0.00	\$38.84
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.55	\$8.70	\$6.58	\$0.00	\$51.83
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$29.94	\$8.70	\$6.05	\$0.00	\$44.69
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$5.24	\$0.00	\$37.46
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.35	\$8.70	\$9.43	\$0.00	\$54.48
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$32.08	\$8.70	\$6.59	\$0.00	\$47.37
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$3.72	\$0.00	\$35.94
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$19.25	\$8.70	\$2.85	\$0.00	\$30.80
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$42.77	\$8.70	\$11.78	\$0.00	\$63.25

Apprentice - LINEMAN (Outside Electrical) - East Local 104

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.66	\$8.70	\$4.24	\$0.00	\$38.60
2	65	\$27.80	\$8.70	\$4.71	\$0.00	\$41.21
3	70	\$29.94	\$8.70	\$5.43	\$0.00	\$44.07
4	75	\$32.08	\$8.70	\$6.16	\$0.00	\$46.94
5	80	\$34.22	\$8.70	\$6.88	\$0.00	\$49.80
6	85	\$36.35	\$8.70	\$7.62	\$0.00	\$52.67
7	90	\$38.49	\$8.70	\$8.83	\$0.00	\$56.02

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$26.33	\$4.18	\$2.79	\$0.00	\$33.30
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TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
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TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
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TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$17.18	\$3.37	\$0.00	\$0.00	\$20.55
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This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is not on the ground. This classification does not apply to wholesale tree removal.

TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$15.15	\$3.37	\$0.00	\$0.00	\$18.52
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This classification applies only to tree work done: (a) for a utility company, R.E.A. cooperative, or railroad or coal mining company, and (b) for the purpose of operating, maintaining, or repairing the utility company's equipment, and (c) by a person who is using hand or mechanical cutting methods and is on the ground. This classification does not apply to wholesale tree removal.

Additional Apprentice Information:

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

- * Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.
- ** 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.

SECTION 00815

EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

- A. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; provision of non-segregated facilities and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- B. The Contractor shall, in all solicitations or advancements for employees placed by or on behalf of the Contractor, state that all qualified applicants shall receive consideration for employment without regard to race, color, religion, sex or national origin.
- C. The Contractor shall comply with all provisions of Executive Order No. 11246 as amended, and of the rules, Regulations, and relevant orders of the Secretary of Labor as applicable.
- D. In the event of the Contractor's noncompliance with the nondiscrimination clauses of the Contract or with any of such rules, Regulations, or orders, the Contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further contracts in accordance with procedures authorized in Executive Order No. 11246 as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 as amended, or by rule, Regulation, or order of the Secretary of Labor, or as otherwise provided by Law.
- E. The Contractor shall include the applicable provisions of the above paragraphs in every subcontract or purchase order unless exempted by rules, Regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 as amended, so that such provisions shall be binding upon each Subcontractor or vendor or Supplier.

END OF SECTION

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SECTION 00818

HEALTH AND SAFETY CRITERIA

Contractor shall comply with the following minimum requirements and is solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

- A. Code of Federal Regulations, Chapter XVII-Occupational Safety and Health Administration (OSHA), Department of Labor, Title 29, Part 1926, Safety and Health Regulations for Construction.
 - 1. Contractor shall strictly comply with the Hazard Communication Standard 1910.1200 regulated by OSHA, including providing and maintaining Safety Data Sheets, labeling of hazardous substances, and providing required protective equipment and training and instruction to personnel on the Site including Owner and Engineer's personnel.
- B. ANSI/ASSE A10 series of safety construction standards including the "Manual of Accident Prevention In Construction" published by The Associated General Contractors of America.
- C. Protection of personnel and equipment under electric lines: comply with the AASHTO Guide on Occupational Safety on Highway Construction Projects, Subpart N, 1926.550, relating to construction equipment clearances at overhead electric lines especially during operations using large vehicles.
- D. Pursuant to *MGL Chapter 30, Section 39M and 39S*, all employees to be employed at the Work Site will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins Work, and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee. Any employee found on a Work Site subject to this section without documentation of successful completion of a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration shall be subject to immediate removal.

- E. This Project is also subject to the following.
- MGL Chapter 82, *The Laying Out, Alteration, Relocation and Discontinuance Of Public Ways, And Specific Repairs Thereon, Section 40:*
 - Section 40 Definitions
 - Section 40A Excavations; notice
 - Section 40B Designation of location of underground facilities
 - Section 40C Excavator's responsibility to maintain designation markings; damage caused by excavator
 - Section 40D Local laws requiring excavation permits; public ways
 - MGL Chapter 82A, *Excavation and Trench Safety:*
 - Section 1 Unattended open trenches; safety hazards; rules and regulations; fines
 - Section 2 Trench excavating permits; permits issued by board or officer; certificate of insurance; fees
 - Section 3 Form of trench excavation permits; required statements
 - Section 4 Definitions
 - Section 5 Additional requirements
 - MGL Chapter 149:
 - Section 6C Health and safety of general public and asbestos workers; rules and regulations*
 - Section 18A Sanitary and safety conditions; tools*
 - Section 18B Confined spaces; ventilation*
 - Section 18C Power transmission equipment*
 - Section 18D Ropes, hooks and cranes; use and operation*
 - Section 18E Safety precautions in dangerous undertakings*
 - Section 18F Explosives*
 - Section 18G Industrial truck and internal combustion equipment*
 - Section 129A Shoring Trenches for local governments*
 - Massachusetts Department of Labor and Industries, Division of Occupational Safety (Chapter 454 CMR 10.00 et seq.)
 - Massachusetts Department of Public Safety "Excavation and Trench Safety" (Chapter 520 CMR 14.00 et seq.)

END OF SECTION

DIVISION 01

GENERAL REQUIREMENTS

SECTION 01001

OVERALL GENERAL REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section specifies the overall general requirements for execution of the Work and applies to all Specifications and Drawings, including:
1. administrative and procedural requirements (relating to the process of contract administration, and the methods of communicating, controlling, and assuring quality);
 2. temporary facilities and controls (put into place for use only during the period of construction and that will be removed when no longer required for construction operations);
 3. general execution requirements; and
 4. startup/commissioning and performance testing.

- B. **Provisions of this Section may be modified and supplemented in Section 01003.** All provisions which are not so modified or supplemented remain in full force and effect.

- C. Section Includes

1.02 PRICE AND PAYMENT PROCEDURES

Schedule of Values
Payment Procedures
Change Procedures
Measurement and Payment Procedures
Correlation of Submittals

1.03 ADMINISTRATIVE REQUIREMENTS

Project Management and Coordination; Meetings
Documentation of Progress
Submittal Procedures
Closeout Procedures

1.04 QUALITY REQUIREMENTS

Reference Standards and Regulatory Requirements
Qualifications

PART 2 - PRODUCTS

- 2.01 SOURCE QUALITY CONTROL
 - General
 - Independent Testing Agency Certification
 - Factory Testing
- 2.02 PRODUCT REQUIREMENTS
 - General
 - Transportation and Handling
 - Storage and Protection

PART 3 - EXECUTION

- 3.01 TEMPORARY CONSTRUCTION FACILITIES
 - Barriers
 - Protection of Work
 - Security
 - Safety Facilities
 - Access Roads
 - Parking
 - Field Offices
 - Staging Area
 - Project Identification
 - Progress Cleaning and Waste Removal
- 3.02 TEMPORARY UTILITIES
- 3.03 TEMPORARY CONTROLS
 - Dust Control
 - Water Control and Dewatering
 - Erosion and Sediment Control
 - Noise Control
 - Pollution Control
 - Traffic Regulation
- 3.04 REMOVAL OF TEMPORARY UTILITIES, FACILITIES,
AND CONTROLS
- 3.05 OVERALL EXECUTION REQUIREMENTS
 - Coordination
 - Existing Conditions
 - Field Engineering
 - Record Documents
 - Cutting and Patching
 - Electrolytic Corrosion Prevention

Quality Assurance and Control of Installation
Manufacturers' Field Services
Independent Testing

3.06 STARTUP, TESTING, AND COMMISSIONING

Spare Parts
Consumables
Checkout and Starting Systems
Starting, Adjusting, and Balancing
Startup and Commissioning/Performance Testing
Demonstration and Training

3.07 ATTACHMENTS

1.02 PRICE AND PAYMENT PROCEDURES

A. Schedule of Values

1. Submit preliminary and final Schedule of Values in accordance with Article 2 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
2. Provide sufficient detail to allow for determination of the value of the Work at any degree of completion.

B. Payment Procedures

1. Reference Article 14 of Standard General and Supplementary Conditions and Additional Supplementary Conditions. Submit 6 copies of each Application for Payment using the form included in the Project Forms section. Utilize latest approved Schedule of Values for listing items in Application for Payment. Provide supporting documentation for items included in the Application for Payment.
2. Payment Period: at intervals stipulated in the Agreement.
3. Submit an updated Progress Schedule with each Application for Payment.

C. Change Procedures

1. Reference Articles 10 and 12 of Standard General and Supplementary Conditions and Additional Supplementary Conditions and forms included in the Project Forms section.

- a. Field Order: issued by Engineer or Owner to advise of minor changes in the Work not involving an adjustment to Contract Price or Contract Time as authorized by Paragraph 9.04 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
- b. Change Request: issued by Engineer, Owner or Contractor to request or authorize minor variations and deviations, amendments or supplements to the Contract Documents per the Standard General and Supplementary Conditions and Additional Supplementary Conditions, Paragraph 3.04. Initiate requests for substitute items per Paragraph 6.05 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions using a Change Request.
 - 1) Engineer or Owner to include a detailed description of a proposed change with supplementary or revised Drawings and Specifications, including a change in Contract Times related to the change (with a stipulation for any overtime work required) and the period of time during which the requested price will be considered valid. Prepare and submit an estimate within 15 days.
 - 2) Contractor to describe the proposed change and its full effect on the Work. Describe the reason for the change and the effect on the Contract Price and Contract Time with full documentation (and a statement describing the effect on Work by separate or other contractors). Document any requested substitutions in accordance with the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
- c. Work Change Directive: issued by Engineer or Owner, signed by Engineer or Owner and instructing Contractor to proceed with a change in the Work. Work authorized in a Work Change Directive will be included in a subsequent Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Price or Contract Time. Promptly execute the change.
- d. Change Order: issued by Engineer or Owner in accordance with the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
 - 1) *Stipulated Price Change Order*: based on Contractor's maximum price quotation or Contractor's request for a Change Order as approved by Engineer or Owner.

- 2) *Unit Price Change Order*: for pre-determined unit prices and quantities and executed on a fixed unit price basis. Execute Work under a Work Change Directive for unit costs or quantities of work not pre-determined. Changes in Contract Price and Contract Time to be computed as specified for Time and Material Change Order.
 - 3) *Time and Material Change Order*: based on itemized account and supporting data after completion of change within time limits indicated in the Standard General and Supplementary Conditions and Additional Supplementary Conditions. Engineer or Owner and Contractor to determine the change allowable in Contract Price and Contract Time as provided in the Standard General and Supplementary Conditions and Additional Supplementary Conditions. Maintain detailed records of work done on this basis, provide full information required for evaluation of proposed changes, and substantiate costs for changes in the Work.
- e. Substitutes and "Or Equals": Request substitute items as a Change Request in accordance with subparagraph C.1.b. above, with complete data substantiating compliance of proposed substitution with Contract Documents.
- 1) Substitute items will be processed in accordance with Article 1.03 subparagraph C.6 below and Paragraph 6.05 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
 - 2) Substitute items will not be considered when indicated or implied on Shop Drawing or material and equipment data submittals without separate written request, or when acceptance will require revision to the Contract Documents.

D. Measurement and Payment Procedures

1. Unit Prices

- a. Take measurements in presence of Engineer and compute quantities. Engineer or Owner to verify and also take measurements and quantities. Notify Engineer or Owner in advance when measurements must be taken.
- b. Unit quantities and measurements indicated in the Bid Form and Bid Form Supplements, if any, are for Contract purposes only. Actual quantities and measurements supplied or placed in the Work determine amount of payment.

2. Payment includes full compensation for required labor, material and equipment, tools, plant, transportation, services and incidentals; erection, application or installation and construction of an item of the Work; and overhead and profit, unless otherwise indicated.
- E. Correlation of Submittals
1. Promptly revise Schedule of Values (if any) and Applications for Payment to record each authorized Change Order as a separate line item and adjust the Contract Price.
 2. Promptly revise Progress Schedule to reflect any change in Contract Times and revise sub-schedules to adjust time for other items of the Work affected by the change.
 3. Promptly enter changes in Project Record Documents.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Project Management and Coordination; Meetings
1. Contact information for Owner and other entities related to the Project and special coordination requirements and contacts during prosecution of the Work are included in the **Specific Project Requirements and Procedures**.
 2. Inform Owner and Engineer of the address for sending official correspondence and the address and telephone number of Contractor's representative who will be project manager and Site superintendent for the Contract and identify the 24 hour, 7 days per week emergency response telephone or cell phone number that is staffed by a person (not a passive answering machine) or provide that a phone call will be returned within one hour.
 3. During periods of construction and testing keep Owner and Engineer informed in writing with name, address, and telephone number of Contractor's representative who will be responsible and available outside of normal working hours for emergency repairs and the maintenance of safety devices.
 4. Identify correspondence, drawings, data and materials, packing slips or other items associated with this Contract as specified in the **Specific Project Requirements and Procedures**.
 5. Coordinate scheduling, submittals, and Work of the various Specifications to effectuate an efficient and orderly sequence for installing interdependent construction elements, with provisions for accommodating items installed later.

6. Preconstruction Conference and Site Mobilization Meeting
 - a. Owner to schedule an initial preconstruction conference in accordance with the Standard General and Supplementary Conditions and Additional Supplementary Conditions Paragraph 2.06.
 - b. Attendance required by Owner, Contractor, Engineer, Contractor's Superintendent, Project Manager, Subcontractors and major Suppliers as needed.
 - c. Agenda
 - Distribute Contract Documents
 - Discuss design concepts
 - Discuss preliminary Progress Schedule, Schedule of Submittals, Schedule of Values and preliminary cash flow projections.
 - Designate personnel representing each party; communication procedures
 - Procedures and processing of submittals, substitutions, applications for payments, Change Orders and Contract closeout procedures
 - Scheduling
 - Use of premises by Owner and Contractor
 - Owner's requirements and partial occupancy
 - Construction facilities and controls provided by Owner
 - Temporary utilities provided by Owner and Contractor
 - Survey and Site Layout
 - Security and housekeeping procedures
 - Schedules
 - Procedures for testing
 - Procedures for maintaining record documents
 - Requirements for start-up
 - Inspection and acceptance of equipment put into service during construction period
 - Access, laydown and coordination with others
 - d. Engineer will record minutes and distribute draft copies within 2 days after meeting to Owner and Contractor for review, then revise as required and distribute within 5 days thereafter to meeting participants, with copies to Owner and Contractor, and those affected by decisions made.

7. Progress Meetings
 - a. Owner to schedule progress meetings beginning no later than 60 days after the Initial Conference and continue thereafter on a weekly, biweekly or monthly basis throughout progress of the Work as specified in the **Specific Project Requirements and Procedures**.
 - b. Attendance required by Contractor, Contractor's Superintendent, major Subcontractors and Suppliers, Owner and Engineer as appropriate to agenda topics for each meeting.
 - c. Agenda:
 - Review minutes of previous meetings
 - Unresolved Issues
 - Review Work progress
 - Observations, problems, and decisions
 - Identification of problems which impede planned progress
 - Review of Schedule of Submittals and status of submittals
 - Review of off-Site fabrication and delivery schedules
 - Maintenance of progress schedule
 - Corrective measures to regain projected schedules
 - Planned progress during succeeding Work period
 - Coordination of projected progress
 - Maintenance of quality and Work standards
 - Effect of proposed changes on Progress Schedule and coordination
 - Other business relating to Work
 - d. Engineer will record minutes and distribute draft copies within 2 days after meeting to Owner and Contractor for review, then revise as required and distribute within 5 days thereafter to meeting participants, with copies to Owner and Contractor, and those affected by decisions made.
8. Pre-installation Conference and Coordination Meetings
 - a. When required, convene a pre-installation conference at Site before commencing certain Work that requires coordination or has special requirements or approvals or convene coordination meetings as may be generally required.
 - b. Attendance required by parties directly affecting, or affected by, Work of the specific Specification section. Notify Owner and Engineer 5 days in advance of pre-installation conference. Party requesting general coordination meeting to notify other party.
 - c. Review conditions, preparation and procedures, and coordination with related Work.

B. Documentation of Progress

1. Submit preliminary and final Progress Schedules as specified in Paragraphs 2.05 and 2.07 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions or as established in Notice to Proceed.
 - a. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
 - b. Indicate estimated percentage of completion for each item of Work at each submission.
 - c. Indicate dates for fabrication, factory testing, delivery, shipping and field testing, and material and equipment delivery dates, including those furnished by Owner. Coordinate with Schedule of Submittals.
2. Submit revised Progress Schedule on monthly basis and with each Application for Payment, identifying changes since previous version. Coordinate content with Schedule of Values, if any.
3. Provide documentation of pre-construction conditions and construction progress using either or both of the following methods as specified in the **Specific Project Requirements and Procedures**.
 - a. Construction Photographs
 - 1) Prior to starting construction, submit photographs of existing Site conditions to Owner to establish a record of pre-construction conditions. Ensure existing conditions of roadway surfaces, curbing, berms, sidewalks, driveways, property bounds, landscaped areas, abutters property and any other items that might be affected by the Work are clearly recorded.
 - 2) Format: electronic in PDF or JPG format with maximum 4 prints on 8-1/2 by 11 sheets.
 - 3) Identify photographs with date, time, orientation and Project identification.
 - 4) Submit photographs monthly during progress of Work with Payment Application.

- b. Digital Video Recording
 - 1) Prior to the start of construction, video record, in color, all areas of the Project Site in the presence of the Engineer to establish a record of pre-construction conditions. Ensure existing conditions of roadway surfaces, curbing, berms, sidewalks, driveways, property bounds, landscaped areas, abutters' property and any other items that might be affected by the Work are clearly recorded.
 - 2) Arrange for video recordings to be conducted by a professional video-photographer in digital videodisc (DVD) format. Include clear and concise audio descriptions of the existing Project Site conditions.
 - 3) Submit a copy of the first completed video recording to the Engineer for review of visual and audio quality. Once approved, submit 2 copies of video recordings. Re-record any recording furnished which, in the opinion of the Engineer, are poor quality or incomplete at no additional cost to Owner.

4. Reports

- a. Submit weekly Safety Reports signed by the responsible on-Site person.
- b. Submit other reports as specified in **Specific Project Requirements and Procedures**, if any.

C. Submittal Procedures

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

4. Submit preliminary and final Schedule of Submittals as specified in Article 2 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions or as established in Notice to Proceed. Include all submittals specified in the Standard General and Supplementary Conditions and Additional Supplementary Conditions, General Requirements, and other Specification sections.
 - a. Include description of each submittal, date by which each submittal will be delivered to Engineer and Owner date by which each submittal must be approved to maintain project schedule, and relevant section reference.
 - b. Allow 15-30 days from receipt of submittal/resubmittal for Engineer review of submittals and possible resubmittal.
5. Shop Drawings and Samples: Submit in accordance with Paragraph 6.17 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions and the **Specific Project Requirements and Procedures**, and coordinate with the Schedule of Submittals required in subparagraph 4 above. Submission of any Shop Drawing or Sample bearing Contractor's and Engineer's approval shall constitute a representation to Owner that the requirements of Paragraph 6.17 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions have been fulfilled.
 - a. Complete the submittal transmittal form included as Attachment A to this Section as is indicated, numbering each submittal consecutively. Assign resubmittals the same transmittal number as the original with a suffix of a sequential letter to indicate the resubmittal (e.g. the first resubmittal of submittal 25 would be number 25A.) Include only those documents previously issued under original transmittal number in resubmittals. Do not combine new submittals with resubmittals.
 - b. Attach a transmittal form to each group of Shop Drawings, manufacturer's literature, equipment data and Samples submitted. Use a sufficient number of transmittal forms so that: items on a single transmittal form pertain to the same equipment item, specification section or element of Work; items on a single transmittal form are either original submittals or the same number resubmittal; and each Sample is listed on a separate transmittal form.
 - c. Engineer to complete review in accordance with Paragraph 6.17.D. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

- d. Submittals which do not have a fully completed transmittal form will be returned along with unreviewed attachments. Returned submittals, even though incomplete, will be counted as a submittal in accordance with the Supplementary Conditions.
 - e. Contractor shall reimburse Owner for Engineer's time beyond one re-submittal per the Standard General and Supplementary Conditions.
6. Variations: Identify variations from Contract Documents and material and equipment or system limitations which may be detrimental to successful performance of the completed Work and identify reasons therefor in accordance with subparagraph 6.17.C.3 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
- a. Clearly identify requests for "Or-Equal" and substitute items and submit per Paragraph 6.05 of Standard General and Supplementary Conditions and Additional Supplementary Conditions and Article 1.02 subparagraph C.1.b above. Substitute items will not be considered when indicated or implied on Shop Drawing or material and equipment data submittals without separate written request, or when acceptance will require revision to the Contract Documents.
7. Manufacturers' Installation Instructions and Certificates: Submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing in accordance with the **Specific Project Requirements and Procedures**. Indicate special procedures, perimeter conditions requiring special attention and special environmental criteria required for application or installation.
- a. Submit manufacturers' certificates for recent or previous test results on material or equipment, but they must be acceptable to Engineer and Owner. Indicate material or equipment conforms to or exceeds specified requirements and provide supporting reference date, affidavits, and certifications as appropriate.
 - b. Submit test results, data, and reports and certifications to Engineer based on tests performed. Submit test reports and certifications for independent testing services specified.
8. Record Documents and Closeout Submittals: submit in accordance with Paragraph 6.12 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions and Article 1.03 Paragraph D below.
- a. *As-Builts for Material and Equipment*: Submit as specified in the **Specific Project Requirements and Procedures**. Indicate "As-Supplied" in revision block and sign. Show all changes and revisions to Final Completion per Article 3.05 Paragraph D.

- b. *Conformed to Construction Record Drawings*: Submit as specified in the **Specific Project Requirements and Procedures**. Indicate "Conformed by Contractor to Construction Records" in revision block and sign. Show all changes and revisions to Final Completion per Article 3.05 Paragraph D.
- c. *Warranties and Guarantees*: Submit duplicate notarized copies of warranty documents which are executed and transferable from Subcontractors, Suppliers, and manufacturers. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of Warranty Period. Assemble in three ring binders with durable plastic cover with a table of contents.
- d. *Operation and Maintenance Data*
 - 1) Submit one draft copy of completed volumes 15 days prior to final inspection. Include 2 copies of completed manuals with major equipment when equipment is shipped. Draft copies will be reviewed and returned after final inspection, with Engineer's comments. Revise content of all sets as required prior to final submission as specified in the **Specific Project Requirements and Procedures**.
 - 2) Submit data in ring binders with durable plastic covers with 8 1/2 by 11 inch text pages. Cover: title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of Project, and subject matter of binder when multiple binders are required.
 - 3) Subdivide binder contents with permanent page dividers, logically organized as described below with laminated plastic tabs and clearly print the contents. Prepare a Table of Contents for each volume, with material, equipment, or system description identified, in three parts as follows:

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

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

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

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

Part 3: Material Safety Data Sheets

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

- Certificates
- Photocopies of warranties

D. Closeout Procedures

1. Substantial Completion shall have been achieved when the following has been completed and the requirements of Paragraph 14.04 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions have been met.
 - a. Work is complete, systems are successfully operating, and final testing has been successfully completed.
 - b. A full inventory of the spare parts and special tools purchased by the Owner are replenished and in the custody of the Owner.
 - c. The Site has been restored to the satisfaction of the Owner.
 - d. An inspection of the Work has been completed by the Engineer and the Owner.
 - e. An updated Punch List is provided.

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

- h. A Certificate of Completion has been provided in accordance with Paragraph 14.07.B of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
 - i. A Final Application for Payment has been submitted to the Engineer identifying total adjusted Contract Price, previous payments, and balance due along with required documentation in accordance with Paragraph 14.07.A. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
5. Owner will make Final payment and acceptance in accordance with Paragraphs 14.07 C and 14.08 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

1.04 QUALITY REQUIREMENTS

A. Reference Standards and Regulatory Requirements

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

B. Qualifications

- 1. Meet or provide capability to meet the criteria specified in connection with the Work of the Contract Documents.
- 2. As a minimum, Contractor shall:
 - a. have been regularly and actively engaged in similar Work as described in the Contract Documents, operating under the same business name and business organization structure, for the last 5 years on at least 5 projects;
 - b. have successfully completed at least 3 projects involving construction of similar facilities in the same state as the Project covered by the Contract Documents;
 - c. have a full-time project manager in responsible charge of the Work with at least 10 years' experience as project manager on comparable projects; and
 - d. carry at least the insurance coverage and amounts required in Article 5 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

PART 2 – PRODUCTS

2.01 SOURCE QUALITY CONTROL

- A. General
 - 1. Subject material and equipment furnished under these Contract Documents to a complete factory testing program as specified.
 - 2. Shop Drawings and submittals: reviewed by Engineer before initiating testing program.
 - 3. Perform checks and tests in accordance with manufacturer's recommendations and referenced standards.
 - 4. Evaluate test results and advise Owner immediately of any discrepancy between test results and test limits or the failure of any device or system under test. Include test limits for acceptability applicable to each test on the certified test records.
 - 5. Record test information, including the evaluation of testing results, on forms approved by Owner and Engineer.
- B. Independent Testing Agency Certification
 - 1. If specified, furnish certificates from an independent testing agency.
 - 2. Independent testing agency to certify that material and equipment components have been examined and tested and are in conformance with the requirements specified in the Contract Documents.
 - 3. Take Samples in accordance with the requirements specified in the Contract Documents, as selected by Owner or independent testing agency. Furnish and ship at no additional cost to Owner.
- C. Factory Testing
 - 1. Provide 14 days prior written notice of factory inspections and tests to Owner and Engineer.
 - 2. If failure to give proper written notice results in material and equipment being assembled or covered before a factory inspection or test, make material and equipment ready for inspection or test and reassemble or recover at no additional cost to Owner.

3. Owner may inspect any portion of material and equipment furnished at any reasonable time during manufacture and may witness testing of any portion of material and equipment wherever located. Owner and Engineer to witness tests only.
4. Furnish, set up and operate test equipment and facilities.
5. If facilities for conducting required tests are unavailable to the manufacturer, conduct tests elsewhere or have them performed by an independent agency approved by Owner.
6. Protect material and equipment after testing and checking to provide that subsequent testing of other equipment or systems does not disturb, damage or otherwise interfere with functional capability of material and equipment.
7. Assume responsibility for protection of material and equipment and safety of all personnel during factory testing program.
8. Grounds for rejection: failure to withstand tests; failure to meet ratings; failure to meet applicable standards.
9. In the event of failure
 - a. Submit revisions of documents requiring approval for changes required for rectification.
 - b. Obtain Owner's and Engineer's approval before making such changes.
 - c. Provide written details of any changes to be made not requiring approval.
 - d. Notify Owner and Engineer in writing before retesting.
 - e. Furnish new material and equipment which meets requirements of the Specifications if rejected material and equipment cannot be rectified to satisfaction of Owner and Engineer.
 - f. Retest after rectification in presence of Owner or Engineer.
10. Assume responsibility for all costs, including, but not limited to: loss or damage to materials and equipment resulting from testing; retesting; rectification; new material and equipment to replace damaged or non-rectifiable material and equipment; removal, furnishing, transportation, unloading, and installation of replacement material and equipment; and witness of testing by Owner and Engineer including travel, lodging, meals, and payroll.

11. Submit certified test reports which define tests, list results, and are signed by Contractor's representative, and copies of raw data collected during tests in accordance with Article 1.03 Paragraph C above. Submission of certified test reports does not relieve Contractor of responsibility for material and equipment meeting requirements of the Contract Documents after installation.

2.02 PRODUCT REQUIREMENTS

A. General

1. Products include new material and equipment incorporated into the Work and may also include existing material and equipment required for reuse. This does not include machinery and equipment used for preparation, fabrication, conveying, installation and erection of the Work.
2. Do not use materials and equipment removed from existing Work Site, except as specifically permitted.
3. Provide complete with accessories, trim, finished, safety guards, and other devices and details need for a complete installation and for the intended use or effect.
4. Provide standard products which have been produced and used successfully on other similar projects for similar applications. Provide products which are likely to be available to Owner in the future for items required for maintenance and repair or replacement Work.
5. Furnish interchangeable components of the same manufacturer, for similar components.

B. Transportation and Handling

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

C. Storage and Protection

1. Store and protect material and equipment in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive material and equipment in weather tight, climate controlled enclosures.
2. For exterior storage of fabricated material and equipment, place on sloped supports, above ground.
3. Provide for bonded off Site storage and protection when Site does not permit on Site storage or protection.
4. Cover material and equipment subject to deterioration with impervious sheet covering. Furnish ventilation to avoid condensation or potential degradation of material and equipment.
5. Store loose granular materials on solid flat surfaces in a well-drained area. Avoid mixing with foreign matter.
6. Furnish equipment and personnel to store material and equipment by methods to prevent soiling, disfigurement, or damage.
7. Arrange storage of material and equipment to permit access for inspection. Periodically inspect to assure material and equipment are undamaged and are maintained in acceptable conditions.
8. After receipt of material and equipment, assume responsibility for loss and damage including but not limited to breakage, corrosion, weather damage, and distortion.

PART 3 – EXECUTION

3.01 TEMPORARY CONSTRUCTION FACILITIES

A. Barriers

1. Comply with the requirements of Paragraph 6.11. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
2. Furnish barriers to prevent unauthorized entry to and clear delineation of construction areas, to allow for Owner's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations as recommended by OSHA and as otherwise required for the protection of life and property during construction.

3. Construct barricades and protective facilities in accordance with local and state regulations. Furnish and install signs, lights, reflectors, and such protection facilities as may be required.
 4. Furnish barricades required by governing authorities for public rights of way.
 5. Provide protection for plant life designated to remain. Replace damaged plant life.
 6. Protect non owned vehicular traffic, stored materials, Site and structures from damage.
 7. If required, furnish commercial grade, minimum 8 foot high chain link fence around construction Site. Equip with vehicular gates with locks.
- B. Protection of Work
1. Protect Work during working and non-working hours.
 2. Provide special protection where specified in Specifications or Drawings and in accordance with manufacturer recommendations.
 3. Furnish temporary and removable protection for installed equipment and material. Control activity in immediate Work area to minimize damage.
 4. Protect exterior areas of Work from damage. Prohibit traffic from landscaped areas.
 5. Buildings and Enclosures
 - a. Furnish protective coverings at walls, projections, jambs, sills, and soffits of openings and protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
 - b. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
 6. Whenever gale or high winds are forecast, take measures to secure loose material, equipment or other items that could be blown and be damaged or cause damage. Do not leave such loose items unsecured at end of a working day. Particular attention shall be taken with scaffolding and items placed or stored on roofs or within a structure prior to being enclosed.

7. Provide for removal of snow and ice which may impede Work, damage the finishes or materials, be detrimental to workers, or impede trucking, delivery, or moving of materials at the Site, or prevent adequate drainage of the Site or adjoining areas.

C. Security

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

D. Safety Facilities

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

E. Access Roads

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

F. Parking

1. Construct temporary gravel surface parking areas to accommodate construction personnel. When Site space is inadequate, provide for off-Site parking.
2. Do not allow construction vehicle parking on existing pavement or sidewalks.

G. Field Offices

1. Furnish weather tight office with lighting, electrical outlets, heating, cooling and ventilating equipment, and equip with furnishings and accessories to accommodate supervision of Work, maintenance of records, and project meetings, including, but not limited to the following.

- Desk and chairs (2 cushioned office desk chairs and 4 metal fold chairs)
 - Plan table with light and stool
 - 3 locking file cabinets
 - Hanging plan rack
 - Book case with 4 shelves
 - “All-in-one” color copier, printer, scanner and fax machine, capable of 11 by 17 output (OR separate color copier, color printer, color scanner, all capable of 11 by 17 output, and fax machine)
 - Paper stock for duration of Project
 - Telephone with answering machine (or telephone service with voicemail feature)
 - Refrigerator, microwave, and water cooler with bottled water supply for duration of Project
 - First aid kit
2. Furnish separate office for use by Engineer and Resident Project Representative similarly equipped with new equipment and furniture.
 3. Locate field offices as specified in **Specific Project Requirements and Procedures** or as shown on the Drawings and maintain utilities per Article 3.02 for the duration of the Project.
- H. Staging Area: Locate as specified in **Specific Project Requirements and Procedures** or as shown on the Drawings.
- I. Project Identification: If required by Laws and Regulations or Owner, furnish signs with required Project information at designated locations in accordance with Laws and Regulations and as may be specified in **Specific Project Requirements and Procedures**.
- J. Progress Cleaning and Waste Removal
1. Comply with the requirements of Paragraph 6.11. B and C of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
 2. Maintain areas free of waste materials, debris, and rubbish and maintain the Site in a clean and orderly condition.
 3. Remove debris and rubbish from spaces and other closed or remote spaces before enclosing the space.
 4. Collect and remove waste materials, debris, and rubbish from Site at least weekly and legally dispose off-Site.

3.02 TEMPORARY UTILITIES

- A. Arrange for and pay for required power service from local electric utility for duration of Project. Exercise measures to conserve energy. Arrange for temporary electric service at location designated by Owner or as shown on the Drawings. Furnish and install required equipment including pole of sufficient height to provide proper clearance and install weatherproof box of such size to house service disconnect, overcurrent protection, electric meter, and other required equipment.
- B. Arrange for, pay for, and maintain telephone service and internet access to field offices at time of Project mobilization and for duration of Project.
 - 1. Obtain voicemail feature if answering machine not provided.
 - 2. Provide wireless, high speed broadband internet access via DSL, cable, satellite, or T1.
- C. Arrange for, pay for and maintain suitable quality water service as required for duration of Project.
- D. Furnish lighting for construction operations. Furnish lighting for exterior staging and storage areas and for security purposes. Maintain lighting and provide routine repairs.
- E. Furnish and pay for heat devices and heat and cooling devices as required to maintain specified conditions for construction operations.
- F. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- G. Furnish and maintain required sanitary facilities and enclosures. Do not use existing facilities.
- H. Fire Protection
 - 1. Provide temporary fire protection equipment and services during construction until the permanent system is serviceable per NFPA and local fire code and regulations, and fire marshal's requirements.
 - 2. Use Work procedures that minimize fire hazards to the extent practicable and materials that are fire resistant where possible. Collect and remove combustible debris and waste materials from the Site each day. Store fuels, solvents, and other volatile or flammable materials away from the construction and storage areas in well-marked, safe containers in accordance with Laws and Regulations.

3.03 TEMPORARY CONTROLS

- A. Dust Control: Execute Work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere. Utilize the application of sprinkled water to reduce the emission of air-borne soil particulates from the Project Site.
- B. Water Control and Dewatering
 - 1. Grade Site to drain away from excavations to approved drainage collection facilities. Ensure collected surface drainage water meets permitted criteria for sediment content prior to discharge.
 - 2. Maintain excavations free of water. Furnish, operate and maintain pumping equipment.
 - 3. Dewater excavations and legally dispose of water in a manner that will not cause injury to public and private property.
 - 4. Protect Site from puddling, ponding or running water.
 - 5. Design, furnish, install, maintain, operate and remove temporary dewatering systems as required to lower and control water levels and hydrostatic pressures in excavations during construction; legally dispose of pumped water; construct, maintain, observe and, except where indicated or required to remain in place, remove dewatering equipment and system at the completion of construction.
 - a. Dewatering may include: lowering the water table, intercepting and collecting seepage which may penetrate the support of excavation, slopes or bottom of the excavation; increasing the stability of excavated slopes; preventing loss of material from beneath the slopes or bottom of the excavation; reducing lateral loads on sheeting and bracing; limiting horizontal displacements and stresses in support of excavation to tolerable and allowable levels; preventing displacements of existing structures, utilities, pavements, and sidewalks; improving the excavation and hauling characteristics of sandy soil; preventing rupture or heaving of the bottom of any excavation; and disposing of pumped water.
 - b. *Normal dewatering* is defined as using conventional pumps installed in open excavations, ditches, or sumps to control water and allow for installation of the pipe in a dry trench. *Special dewatering* is defined as installing wellpoints, deep wells, or eductor and ejector systems to control groundwater and hydrostatic pressures to allow for installation of the work. Special dewatering includes design of the dewatering system by a Professional Engineer currently registered in the state where the Project is

located in good standing, and conducting additional borings or subsurface explorations deemed necessary by the Contractor, and approved by the Engineer, to support design.

- c. For Special Dewatering, retain the services of a Professional Engineer currently registered in the state where the Project is located in good standing, experienced in design of dewatering systems, to independently evaluate the boring logs and other soils information available to determine those areas that will require special dewatering techniques and to design the required system. If, in the opinion of the Contractor or Contractor's Dewatering Professional Engineer, additional borings are needed to design special dewatering systems or determine areas where special dewatering techniques will be required, the Contractor shall retain and pay for the services of a boring subcontractor. Contractor's Dewatering Professional Engineer shall provide sufficient on-Site inspection and supervision to assure that the dewatering is carried out in accordance with the approved design.
- d. Design a dewatering system capable of:
 - 1) effectively reducing the hydrostatic pressure and lowering the groundwater levels to a minimum of 2 feet below excavation subgrade in the existing fills and any organic peat, and below the excavation subgrade in the existing organic silts/clays unless otherwise directed by the Engineer, so that all excavation bottoms are firm and dry;
 - 2) maintaining a dry and stable subgrade until the structures, pipes, appurtenances, and drainage pipe and structure bedding to be built therein have been completed to the extent that structures, pipes, and appurtenances will not be floated or otherwise damaged;
 - 3) lowering of the groundwater level within the work area without adversely affecting existing structures, utilities, pavements, sidewalks or wells outside of the Work area.
- e. Submit the following in accordance with Article 1.03 Paragraph C above.
 - 1) Plans and description of the Normal and/or Special Dewatering systems, including the number, location and depth of wells, wellpoints or sumps; designs of filters to prevent pumping of fine soil; method and location for filtering, sedimentation tanks and legal disposal of pumped water; and flow capacity of proposed system, accounting for groundwater level relative to tide cycles if applicable.

- 2) Design calculations, description and complete layout drawings, stamped and signed by Contractor's Dewatering Professional Engineer, at least two weeks prior to scheduled installation of Special Dewatering system
 - 3) Locations of observation wells
 - 4) Records of pump operation and groundwater elevations
6. Dewatering Operations and Procedures
- a. Provide electrically operated dewatering equipment, powered with independent generators adequately sized to operate the dewatering system and capable of running on commercial power. Provide standby equipment independent of commercial power and provide for dewatering within 24 hours upon primary pump or power failure. No work shall be performed by the Contractor below the pre-construction groundwater level during dewatering system failure.
 - b. Provide suitable temporary pipes, flumes or channels for water that may flow along or across the Site of the Work.
 - c. Provide dewatering equipment with noise attenuation systems capable of meeting the governing noise regulation requirements.
 - d. Encapsulate the suction end of the pump with crushed stone, filter fabric, and other materials to minimize the amount of silt discharged to the amount allowed by the construction dewatering permit.
 - e. Do not operate equipment on paved surfaces to prevent damaging these surfaces.
 - f. Locate dewatering facilities to prevent interference with utilities and construction work to be done by others.
 - g. For dewatering operations with relatively minor flows, direct pump discharges using filtration bag or system per Erosion and Sediment Control below, or pump into hay bale sedimentation traps lined with filter fabric. Filter water through the hay bales and filter fabric prior to seepage into storm drainage or any natural water course.
 - h. For dewatering operations with larger flows, provide pump discharges into a steel dewatering/sedimentation basin. Use steel baffle plates to slow water velocities, to increase the contact time, and allow adequate settlement of sediment prior to discharge into waterways, storm drainage or discharge point allowed by the construction dewatering permit.

- i. Utilize silt sacks in catch basins when excess silt is suspended in the discharge water per Erosion and Sediment Control below.
 - j. If siltation basin is used, size to effectively filter for the volume and discharge rate of water anticipated without overflow.
 - k. Provide treatment necessary to prevent discharge of silty and/or contaminated ground water caused by the Contractor's operations, or any contaminated ground water that may pass from excavated surfaces and/or through the excavation support system selected by the Contractor.
 - l. Dispose of water pumped or drained from the Work in accordance with permit requirements and in a manner to prevent undue interference with other work or damage to adjacent properties, pavements and other surfaces, buildings, structures and utilities.
 - m. Obtain necessary regulatory approvals for the disposal of dewatering flows, including, among others, approval by the Environmental Protection Agency under the National Pollutant Discharge Elimination System (NPDES) program for construction dewatering activities. Submit the completed and approved construction dewatering permit to the Engineer immediately upon receipt.
7. Special Dewatering
- a. Use Special Dewatering as necessary if Normal Dewatering methods are inadequate to ensure dry and stable excavation subgrade conditions.
 - b. Special Dewatering techniques may consist of one- or two-stage wellpoint systems, deep wells, or eductor and ejector type systems. Design with suitable screens to prevent pumping of fines and to address specified Work Site conditions.
 - c. In areas requiring special dewatering, lower the groundwater level to a minimum of 2 feet below the existing fill and/or organic peat subgrades or to the excavation subgrade for organic silt/clay subgrades prior to any installation and maintain that groundwater level until the excavation has been backfilled and provide monitoring by Contractor's Dewatering Professional Engineer to ensure conformance with the requirements herein.
 - d. Furnish materials and install at least two observation wells at each excavation area. The location of the wells shall be proposed in the field by the Contractor's Dewatering Professional Engineer and reviewed and approved by the Engineer.

C. Erosion and Sediment Control

1. Plan and execute construction using methods to control surface drainage from cuts and fills, from borrow and waste disposal areas and prevent erosion and sedimentation.
2. Submit erosion and sediment control plan to Engineer prior to the start of construction.
3. Install erosion and sediment controls as may be shown on the Drawings and as required by Laws and Regulations. Install additional erosion and sedimentation control measures beyond those shown on the Drawings as necessary to stabilize the Site. Coordinate temporary erosion controls with permanent erosion controls to the extent practical. Provide and maintain devices to control erosion, siltation, and sedimentation that occur during construction operations. Undertake reasonable precautions and measures to avoid erosion of soil and to prevent silting of drainage ditches, storm sewers, rivers, streams, and lakes.
4. Employ pollution prevention measures, erosion and sedimentation control before, during, and after soils are exposed. Implement measures prior to soil disturbance or soil storage to the extent possible to ensure that such measures are in place before activity occurs and employ additional measures as the Work progresses. Implement and maintain as necessary until the Site is permanently stabilized.
5. Perform inspections of disturbed soil areas, material storage areas exposed to precipitation, and erosion control measures with Engineer a minimum of once every 14 days and also within 24 hours after any storm event greater than 0.5-inches of rainfall. Immediately correct deficiencies in the erosion control measures identified or indicated by failures or erosion by implementing additional measures or different techniques to correct and prevent subsequent erosion at no additional cost to Owner.
6. In the event that silt or debris breaches erosion control, immediately remove and clean silt or debris from drainage ditches and storm sewers and revise erosion control measures as required by the Conservation Commission or the Engineer. Should silt or debris breach erosion controls and reach rivers, streams or lakes, immediately notify local, state or Federal representatives as required and implement required remediation methods at no additional cost to Owner.
7. Limit duration of the exposure of soils on embankments, excavations, and graded areas to a minimum.

8. Provide temporary measures such as berms, dikes and drains to prevent water flow. Install erosion control measures in any ditch, swale or channel before water is allowed to flow in the waterway. Handle water pumped from trenches to minimize discharge of silty water to the maximum extent practicable.
9. Stabilize storm drain outfalls as shown on the Drawings before the discharge points become operational. Install inlet protection immediately upon construction of culverts.
10. Stabilize disturbed areas with temporary and permanent erosion control practices as soon as practicable, but no more than 14 days after construction activity on a particular portion of the Site has temporarily or permanently ceased. Exceptions to this time requirement include: a) where construction activities will resume on the particular portion of the Site within 21 days; and b) where snow cover delays initiation of stabilization measures.
11. Place stockpiled topsoil on the Site away from natural drainages, in piles with side slopes of 50 percent to 70 percent. Install siltation fence around the base of the pile to prevent eroding soil from washing into drainages. Cover topsoil piles which are to remain for a period of 21 days or more with temporary seed and mulch immediately following stockpiling.
12. Conduct pavement sweeping to remove sediment and soil debris accumulation on pavement resulting from construction activity
13. Siltation/Silt Fence
 - a. Filter fabric: suitable for erosion control.
 - b. Wood posts: oak, 2 inches by 2 inches in section, and at least 4.5 feet in length.
 - c. Erosion control fencing: heavy-duty filter fabric towed into the existing soil as shown on the Drawings.
 - d. Construct as shown on Drawings or as directed by Engineer. Install parallel to contours where possible, prior to Site clearing and grading activities.
 - 1) Dig a 6 inch by 6 inch minimum trench where the fence is to be installed. Position the fence in the trench with the fence posts set at 8 feet on center (maximum). Curve ends of fence uphill to prevent flow around ends.

- 2) Staple sedimentation control fabric and the industrial netting to each post. When joints are necessary, splice filter fabric together only at support posts with 6-inch overlap and securely seal.
- 3) Bury lower edge of fabric at least 6 inches below ground surface to prevent underflow. Backfill trench and compact soil over filter fabric.
- 4) Installed height: minimum 2.5 feet and 36 inches maximum.
- 5) Inspect frequently; repair or replace any damaged sections.

14. Temporary Erosion Control Matting

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

15. Seeding

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

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

- 1) Sow seed at the rates indicated, on the pure live seed basis.
 - 2) Mulch areas where temporary seeding has been applied. Do not mulch seeded areas where matting will be immediately installed. If temporary seeding does not achieve adequate growth by November 1, apply an additional layer of mulch.
 - 3) Mulch temporarily or permanently seeded areas, areas which cannot be seeded within the recommended seeding dates, and any soil stockpile areas, immediately following seeding. Straw or hay mulch, wood fiber mulch, and hydromulch are recommended.
16. Sod: grown from certified seed of adapted varieties to produce high quality sod free of any serious thatch, weeds, insects, diseases and other pest problem, be at least one year old and not older than three years, and cut with a 1/2 inch to 1 inch layer of soil.
- a. Lay sod strips on the prepared soil, perpendicular to the slope or direction of water flow, starting at the lowest elevation. Butt the edges and ends of the sod strips together and tamp or roll. Stagger joints.
 - b. Staple sod strips at ends and at 3-foot intervals along the center of the strip.
 - c. Irrigate sodded area immediately after installation.
17. Catch Basin Silt Sacks
- a. Style: Silt Sack Regular Flow.
 - b. Test Method: ASTM D-4884 165.0 lbs./inch.
 - c. Silt sack seams: certified average wide width strength.
 - d. Meet the following ASTM D-4884 standards. Properties are Minimum Average Roll Values (MARV).

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

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

18. Filtration Bag or System for Discharge from Trench Dewatering

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

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

- b. For discharge from trench dewatering, install filtration bag or system or dewatering siltation basin constructed of a hay bale barrier lined with filter fabric sized to handle the volume of dewatering without overflowing.

19. Compost Filter Socks

- a. Furnish and install biodegradable mesh “socks” filled with mature, clean compost per EPA National Pollutant Discharge Elimination System (NPDES) specifications.

- 1) Install per EPA and manufacturers recommendations.
- 2) Install parallel to contours where possible. Stake socks as needed to stabilize. Inspect frequently and repair as necessary.

20. Provide detention basins or water filtration systems for dewatering and coordinate locations with Engineer. See Dewatering in Article 3.03 Paragraph B. above.

21. Other Temporary Measures
 - a. Provide and maintain temporary slope drains as required.
 - b. Employ other temporary erosion control measures as directed by the Engineer or local Conservation Commission.
22. Maintenance
 - a. Inspect erosion control practices immediately after each rainfall and at least daily during prolonged rainfall or snowmelt for damage. Make appropriate repairs or replacement until Final Completion at no additional cost to the Owner.
 - b. Remove silt from siltation fence and/or haybale when it has reached one-quarter of the bale and/or fence height, or prior to expected heavy runoff or siltation.
 - c. Repair matting if any staples become loosened or raised, or if any matting becomes loose, torn, or undermined, make satisfactory repairs immediately.
 - d. Maintain areas mulched or matted until Final Completion, at no additional cost to the Owner.
 - e. Maintain sediment basins by removing silt that reaches a depth of over one foot, at no additional cost to the Owner, until Final Completion.
23. Removal of Temporary Erosion Control
 - a. Remove temporary materials and devices upon completion of the Work when permanent soil stabilization has been achieved. Re-use materials in good condition if approved by Engineer.
 - 1) If silt socks are used, remove in paved areas or cut open and disperse media in unpaved areas.
 - b. Level and grade to preconstruction conditions and to the extent required to prevent any obstruction of the flow of water or any other interference with the operation of or access to the permanent works.
 - c. Remove siltation fences only when adequate grass growth has been established.
 - d. Repair areas damaged by silt fences and hay bales to preconstruction conditions to the satisfaction of the local Conservation Commission and the Engineer.
 - e. Remove unsuitable materials from Site and dispose of in a lawful manner.

D. Noise Control

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

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

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

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

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

E. Pollution Control

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

a. Water Pollution Control

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

b. Air Pollution Control

- 1) Equipment and vehicles that exhibit excessive exhausts emissions due to poor engine adjustments or inefficient operation will not be permitted to operate until corrective repairs or adjustments are made.
- 2) Burning of materials from clearing or grubbing operations, combustible construction materials, and rubbish will not be allowed.

F. Traffic Regulation

1. Control and maintain traffic within the Project area. Submit traffic control plans and coordinate with Owner and local agencies. Submit plan for traffic control to Owner for review 14 days in advance of any Work within public right-of-way, street closure or detour.
2. Provide and maintain traffic control and maintenance devices in accordance with Part 6, Temporary Traffic Control, of the "*Manual on Uniform Traffic Control Devices for Streets and Highways*", published by the U.S. Department of Transportation, Federal Highway Administration and other applicable codes and standards as specified. Operate devices 24 hours per day as required.
3. Provide for access by emergency vehicles, such as police, fire, and disaster units at all times. Contractor shall be liable for damages resulting from failure to provide such access.
4. During construction hours, traffic flow must be controlled by uniformed traffic police officers. The services of uniformed traffic police officers shall in no way relieve the Contractor of its responsibilities under the Contract.
5. Maintain minimum of one moving lane on roadways at all times.
 - a. Where detours are permitted, provide necessary barricades, flashers, flashing arrows and signs in accordance with referenced Manuals and Laws and Regulations.
 - b. Provide gravel borrow and bituminous concrete to maintain temporary passable travel lane ramps, temporary bridging, steel plates, temporary pavement, wood-framed walkways, caution, safety and other necessary signs directing the pedestrian and vehicular traffic towards unblocked and safe areas.

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

3.04 REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, and facilities before Final Application for Payment inspection.

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

3.05 OVERALL EXECUTION REQUIREMENTS

- A. Coordination
 - 1. Conduct preconstruction and pre-installation meetings before commencing certain Work that requires coordination or has special requirements or approvals in accordance with Article 1.03 Paragraph A.
 - 2. Coordinate space requirements and installation of Work. Utilize spaces efficiently to maximize accessibility for other installations, maintenance, and repairs.
 - 3. Coordinate Work of the various Specifications with interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.
 - 4. Coordinate related Work at the Site in accordance with Article 7 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
 - 5. Coordinate completion and cleanup of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
 - 6. After Owner occupancy of premises, coordinate access to Site for correction of defective Work and/or incomplete Work to minimize disruption of Owner's activities.
 - 7. See other coordination requirements in **Specific Project Requirements and Procedures**.
- B. Existing Conditions
 - 1. Information regarding subsurface/physical conditions and Hazardous Environmental Conditions, if any, are included in the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
 - 2. Existence and location of Underground Facilities and other utilities and construction indicated as existing are not guaranteed. Before beginning Work investigate and verify the existence and location of Underground Facilities and other utilities and construction.

3. See additional details included in **Specific Project Requirements and Procedures**, if any.

C. Field Engineering

1. Prior to initiating construction, engage an independent professional land surveyor registered in the state where the Project is located to provide surveys and permanent reference points for all bounds and property markers along the line of the Work that may be disturbed during construction. Submit copies of all ties to the bounds and property markers to the Engineer prior to excavation at the Site(s).
2. Maintain surveyor's log of control and other survey work. Keep log available for reference.
3. Verify layout information shown on the Drawings in relation to existing benchmarks before lay out of the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
4. Promptly report lost or destroyed reference points, benchmarks, or control points. Promptly report requirements relocate reference and control points due to changes in grades. Promptly replace lost or destroyed bounds or markers and control points based on the original survey control points utilizing the services of a professional land surveyor registered in the state where the Project is located. The cost of replacing markers disturbed by the Contractor's operations shall be at the Contractor's expense.

D. Record Documents

1. Provide Record Documents in accordance with Paragraph 6.12 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions and Article 1.03 subparagraph C.8.
2. Store Record Documents separate from documents used for construction. Record information concurrent with construction progress.
3. Legibly mark each item to record description of actual equipment and material installed and actual construction on approved submittals, including the following.
 - a. Manufacturer's name and equipment and material model and number
 - b. Material and equipment substitutions or alternates utilized
 - c. Approved changes
 - d. Measured depths of foundations

- e. Measured horizontal and vertical locations of Underground Facilities and appurtenances, referenced to permanent surface improvements
 - f. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work
 - g. Field changes of dimension and detail
 - h. Details not on original Contract Documents or Shop Drawings
4. Submit final record documents as specified in Article 1.03 subparagraph C.8.
- E. Cutting and Patching
1. Employ skilled and experienced personnel to perform cutting and patching.
 2. Submit written request in advance of cutting or alteration which affects:
 - a. structural integrity of any element of Project;
 - b. integrity of weather exposed or moisture resistant elements;
 - c. efficiency, maintenance, or safety element;
 - d. safety, traffic, or hazard barriers;
 - e. visual qualities of sight exposed elements; and
 - f. work of Owner or separate contractor.
 3. Execute cutting, fitting, and patching including excavation and fill to complete Work and to:
 - a. fit materials together, to integrate with other work;
 - b. uncover Work to install ill-timed Work;
 - c. remove and replace defective or non-conforming Work;
 - d. remove Samples of installed Work for testing when requested; and
 - e. provide openings in element of Work for penetration of mechanical and electrical work.
 4. Execute Work by methods to avoid damage to other work and which will provide appropriate surfaces to receive patching and finishing.
 5. Provide adequate temporary support for Work to be cut.
 6. Restore Work with new materials in accordance with requirements of Contract Documents. Use materials identical with original materials where recognized that satisfactory results can be produced.

7. Provide protection from elements for areas which may be exposed by uncovering work.
 8. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit. Restore exposed finishes of patched areas; and, where necessary extend finish restoration onto retained adjoining Work in a manner, which will eliminate evidence of patching.
 9. Identify any Hazardous Waste, Hazardous Environmental Condition, or hazardous substance exposed during the Work to Owner for decision or remedy in accordance with Paragraph 4.06 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.
 10. Cut work by methods least likely to damage Work to be retained and work adjoining. Cut Work with sawing and grinding tools, not with hammering, chopping, or burning tools. Cut masonry and concrete materials with masonry saw or core drill. Do not use pneumatic tools without prior approval. Core drill openings through concrete Work. Adhere to mandatory cutback requirements when saw cutting concrete and roadway openings.
 11. Do not cut and patch structural Work in a manner resulting in reduction of load-carrying capacity or load/ deflection ratio.
 12. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Maintain supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage and seal voids. For interior work at penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire resistant material, to full thickness of the penetrated element.
 13. Do not cut and patch operational or safety-related components that reduce capacities to perform in manner intended. Do not cut and patch Work that reduces visual qualities. Remove and replace unsatisfactory cutting patching as directed by Engineer or Owner.
- F. Electrolytic Corrosion Prevention
1. Prevent galvanic action, bimetallic corrosion, anodic or cathodic action, and electrolysis at all electrical grounds and for all galvanic scale (electromotive series or table of oxidation potentials). Do not allow contact of dissimilar metals further apart than 0.35 on the galvanic scale (electromotive series or table of oxidation potentials). The electrode potential of common metals is listed below.

	Electrode Potential Volts (Relative to Hydrogen)
Magnesium	+2.37
Aluminum	+1.70
Zinc+	+0.76
Chromium	+0.56
Iron and Steel	+0.44
Cadmium	+0.40
Nickel	+0.25
Tin	+0.14
Lead	+0.13
Copper	-0.34

2. Unless otherwise indicated, provide dielectric insulators between ferrous and nonferrous pipe and equipment.

G. Quality Assurance and Control of Installation

1. Monitor quality control of Subcontractors, Suppliers, manufacturers, material, equipment, services, Site conditions, and workmanship, to produce Work of specified quality. Conduct field quality control and testing specified.
2. Comply fully with manufacturers' installation instructions, including each step in sequence. If manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
3. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
4. Perform Work using persons qualified to produce workmanship of specified quality.
5. Install field Samples and mockups at the Site as required in Specifications for review. Acceptable Samples and mockups represent a quality level for the Work. Where field Sample or mockup is specified to be removed, clear area after field Sample or mockup has been accepted by Engineer or after Work is complete when mockup is to serve as a control reference.
6. Protect adjacent construction in accordance with Paragraph 6.11 of the Standard General and Supplementary Conditions and Additional Supplementary Conditions.

H. Manufacturers' Field Services

1. If required in the Specifications, arrange and pay for material or equipment Suppliers or manufacturers to provide qualified staff personnel (field representative) to perform the following services and services specified. Submit reports of activities, actions taken and test results to Engineer within 10 days of completion in accordance Article 1.03 Paragraph C above.
 - a. Observe Site conditions, conditions of surfaces and installation, quality of workmanship.
 - b. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
 - c. Assist with field assembly as required.
 - d. Furnish, setup, and operate required test equipment and facilities.
 - e. Perform and record results of manufacturer recommended inspections and tests, and tests specified for material and equipment.
 - f. Be responsible for protection of material and equipment and safety of all personnel during testing.
 - g. Perform any other services normally provided by field representative's company.
 - h. Instruct operating personnel in proper use of material and equipment.
 - i. Instruct and supervise field repairs before acceptance by Owner.

I. Independent Testing

1. Employ and pay for specified services of an independent firm in accordance with Paragraph 13.03 of the Standard General Conditions and Supplementary Conditions to perform inspection and testing as may be specified.
2. Reports will be submitted by the independent firm to Owner, in duplicate indicating observations and results of tests and indicating compliance or noncompliance with Contract Documents.
3. Inspection, testing, and source quality control may occur on or off the Project Site.
4. Cooperate with independent firm. Furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.

5. Notify Owner and independent firm 24 hours before expected time for operations requiring services.
6. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.
7. Retesting required because of nonconformance to specified requirements will be performed by the same independent firm if instructed by Owner. Payment for retesting will be charged to Contractor by deducting inspection or testing charges from the Contract Price.
8. Testing or inspecting does not relieve Contractor from performing Work in accordance with requirements of the Contract Documents.

3.06 STARTUP, TESTING, AND COMMISSIONING

A. Spare Parts

1. Provide spare parts required for construction, startup, testing and commissioning of the Work prior to achievement of Substantial Completion, including spare parts for flushing and consumable supplies such as bolts, nuts, gaskets, filters, insulating tape, etc., normally consumed in the construction, commissioning and testing.
2. If spare parts are purchased by Owner, Contractor shall have the right to use the spare parts purchased by Owner provided that such spare parts are replaced prior to Substantial Completion at Contractor's expense. Replacement spare parts, replaced by Contractor, shall be new, unused and identical as the original spare part used.

B. Consumables

1. Provide initial fills of consumables including equipment lubricants, resins, chemicals, desiccants, and fuels. Provide subsequent fills if required during Warranty Period if acts or omissions of Contractor cause such consumables to require replacement.
2. Coordinate with Owner for consumables required.

C. Checkout and Starting Systems

1. Coordinate schedule for startup and operation of various equipment and systems with Owner.
2. Notify Owner 7 days before startup of each major piece of equipment or system, including a staffing request for Owner's operations and maintenance personnel required to adequately and safely support each specific start-up and operation activity.

3. Verify that each system or piece of equipment item has been assembled, constructed, or completed in accordance with the Contract and capable of functioning as intended.
4. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, magnetic center alignment, belt tension, control sequence, or other conditions which may cause damage.
5. Verify that each piece of equipment or system has successfully completed construction testing and cold commissioning, including hydrostatic testing, loop checks, relay checks, calibration, and continuity checks and that all tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
6. Verify wiring and support components for equipment are complete and tested.
7. Execute start up under supervision of responsible manufacturers' representative or Contractor's personnel in accordance with manufacturers' instructions utilizing Owner's qualified operations and maintenance staff trained by Contractor.
8. When specified in individual Specification Sections, require manufacturer to provide field representative to be present at Site to inspect, check and approve equipment or system installation before start up, and to supervise placing equipment or system in operation.

D. Starting, Adjusting, and Balancing

1. Supply necessary equipment, material, construction power, and consumables (except for those provided by Owner) needed to startup and fully test the Work and replenish the same until Substantial Completion is achieved. Contractor may utilize Owner's operating spare parts, such use requiring timely replacement at Contractor's expense.
2. Coordinate as required for conduct of independent testing.
3. Perform specified and required adjusting and balancing concurrently to the maximum extent possible on individual equipment and systems and prior to startup and commissioning/performance testing.

- E. Startup and Commissioning/Performance Testing
1. Conduct startup and commissioning/performance tests to demonstrate the Work meets the requirements of the Contract Documents, satisfies the Owner's requirements, and is in accordance with Paragraph 14.04. of the Standard General and Supplementary Conditions and Additional Supplementary Conditions. Conduct testing in accordance with the separate Startup and Commissioning section, if included.
 2. Prepare and submit a written startup and commissioning/performance testing procedures no later than 60 days prior to start of testing for review and final test procedures no later than 30 days prior to start of testing. Submit a staffing request for Owner's operations and maintenance personnel.
 3. Calibrate test equipment and instrumentation on Site or provide acceptable certificate of calibration conducted within 30 days of testing.
 4. Complete functional testing prior to initiating the startup and commissioning/performance testing as specified.
 5. Complete specified startup and commissioning/performance tests prior to Substantial Completion. Owner and Engineer will witness Performance Testing. Notify Owner and Engineer in writing at least 7 days prior to starting any startup and commissioning/performance testing. Coordinate for witnessing of tests by required regulatory representatives.
 6. Submit written test reports per Article 1.03 subparagraph C.7.b and Paragraph D above.
- F. Demonstration and Training
1. Provide formal demonstration and training of Owner's personnel as specified in individual Specification sections, in accordance with the separate Demonstration and Training section (if any), or per **Specific Project Requirements and Procedures**.

3.07 ATTACHMENTS

- A. Transmittal form

END OF SECTION

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SECTION 01002

SUMMARY OF WORK

PART 1 – GENERAL

1.01 SECTION INCLUDES

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

1.02 PROJECT DESCRIPTION

- A. The Project is to remove existing water meters, provide new water meters and install Owner furnished meter transmission units throughout the City of Marlborough, Massachusetts to communicate with Owner's existing meter reading system for billing.

1.03 DESCRIPTION OF THE WORK

- A. The Work includes labor, material and equipment, and services required, in accordance with the Contract Documents and as more specifically described in the Specifications and includes, but is not limited to, the following:
 - 1. Remove existing water meters at various locations throughout the City and transport and store removed water meter registers in a locked, sheltered, heated, and secure location for later use in verifying final readings. Existing meter registers shall be stored for a period of 12 months from the date of meter replacement. Following the 12 month storage period, legally dispose of the registers.
 - 2. Furnish and install new water meters and install Owner furnished meter transmission unit (MTUs), compatible with Owner's existing system, including mounting, wiring, and testing at various locations throughout the City. Utilize specified process to notify and obtain permission to access locations for installations.
 - 3. Perform testing of new water meters and MTUs to ensure complete and accurate communications with Owners meter reading system.
 - 4. Provide field and office training to Owner's staff.

5. Furnish record documents including information for system maintenance and support.
 6. Provide all other materials and equipment and services inherent to the Work.
- B. Work Site locations: meter addresses shall be provided to the Contractor after award.
- C. Existing conditions and Site data: per Section 00300.

1.04 WORK SEQUENCE AND COORDINATION

- A. The Work will extend over more than one construction season and must be sequenced to limit impacts to the City residents and areas affected by installation.
- B. Access to businesses and residences must be maintained during execution of the Work.

1.05 SPECIAL PROJECT REQUIREMENTS

- A. Comply with notification and access requirements specified, including obtaining permission to access properties and locations for installations. Coordinate with Owner and Engineer. Comply with Laws and Regulations regarding accessing private property on behalf the Owner.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01003

SPECIFIC PROJECT REQUIREMENTS AND PROCEDURES

The following supplement shall modify the requirements and procedures of Section 01001 using the same Article heading to which the supplement or modification applies. All provisions which are not so modified or supplemented remain in full force and effect.

The terms used herein have the meanings stated in the Standard General and Supplementary Conditions, Section 01001, and as may be defined herein.

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

1.01 ADMINISTRATIVE REQUIREMENTS

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

subparagraph 1 regarding contact information,

- the Project contact list will be provided at the Preconstruction Conference and Site Mobilization Meeting.
- Provide a 24 hour answering service in accordance with Section 02501.

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

City of Marlborough MA Contract 2014-16 Installation of Commercial Water Meters and MTUs

subparagraph 7.a, Progress Meetings, monthly progress meetings or as needed will be held for the Project.

Pursuant to Paragraph B, Documentation of Progress,

subparagraph 3, provide construction photographs prior to start of construction to establish pre-construction conditions and to show progress in accordance with subparagraph 3 and Section 02501.

subparagraph 4, reports, submit the following additional reports.

Weekly progress/installation reports in accordance with Section 02501.

Pursuant to Paragraph C, Submittal Procedures,

subparagraph 1, address submittals as follows.

Engineer: Woodard & Curran
40 Shattuck Road, Suite 110
Andover, MA 01810
Attention: Rachel Gilbert
Phone: (978) 557-8150 • Fax: 978-557-7948
Email: rgilbert@woodardcurran.com

subparagraph 5, Shop Drawings, submit 6 prints and electronic files in PDF by email to Engineer.

subparagraph 7, Manufacturers' Installation Instructions and Certificates, submit 6 prints and electronic files in PDF by email to Engineer.

subparagraph 8.a, As-Builts for Material and Equipment, submit 6 prints and electronic files in PDF by email to Engineer.

subparagraph 8.b, Conformed to Construction Record Drawings, will not be required.

subparagraph 8.d, Operation and Maintenance Data, submit 6 copies of final volumes, with electronic files in PDF format on CD, within 10 days after final inspection to Engineer.

1.02 QUALITY REQUIREMENTS

Add the following after subparagraph B.2 regarding Qualifications.

3. Qualifications must include the following specialty experience.
 - Meter installation for at least 3 public utilities in the Commonwealth of Massachusetts, within the last 5 years, each with a contract value of \$1 million dollars or greater and a scope of work which includes the replacement of at least 1,000 water meters with a demonstrated failure rate of less than 5 percent during the first year of use.
 - Projects for at least 4 public utilities where same meter as that specified in the Contract Documents has been in use for at least 2 years with a demonstrated failure rate of less than 5 percent during the first year of use.
 - Meter suppliers must have been manufacturing meters for at least 20 years.

2 PRODUCTS

2.01 PRODUCT REQUIREMENTS

Add the following at the end of subparagraph A.1.

The definition of “material” also includes that defined in Section 00811, as required by Massachusetts General Law.

3 EXECUTION

3.01 TEMPORARY CONSTRUCTION FACILITIES

Pursuant to Paragraph F, Traffic Regulation,

subparagraph 4, regarding use of police officers, coordinate schedule of police details which will be direct billed to the Owner. See Section 01225.

Add the following to subparagraph F.1, Parking.

Off-Site construction parking area to be established at a location determined by Contractor.

Add the following to subparagraph F.2, regarding the MUTCD.

Also comply with applicable portions of the “Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices and the Standard Municipal Traffic Code” published by the Massachusetts Department of Transportation Highway Division.

Delete Paragraph G, Field Offices, in its entirety. Field offices are not required for the Project.

Pursuant to Paragraph H, Staging Area, Owner is not providing a location for staging area. Determine and secure a location for staging area.

3.02 TEMPORARY UTILITIES

Whereas field offices are not required for the Project, delete requirements relating to utilities for field offices in Paragraphs A, B, C, and G.

3.03 TEMPORARY CONTROLS

The following paragraphs generally do not apply to this Project.

- A. regarding dust control
- B. Water Control and Dewatering
- C. Erosion and Sediment Control
- D. Noise Control
- E. Pollution Control

Pursuant to Paragraph F, Traffic Regulation,

Add the following to subparagraph 1, Site specific traffic control plan.

In addition to a Site specific traffic control plan, submit a schedule of road closures/detours and obtain a road closure and road blockage permit for every location where Work is being performed.

Add the following to subparagraph 2, regarding the MUTCD.

Also comply with applicable portions of the “Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices and the Standard Municipal Traffic Code” published by the Massachusetts Department of Transportation Highway Division.

Add the following to subparagraph 4, regarding use of police officers.

- a. Coordinate schedule of police details which will be direct billed to the Owner per Section 01225.

3.04 OVERALL EXECUTION REQUIREMENTS

Pursuant to Paragraph A, Coordination,

Add the following to subparagraph 3, regarding Work coordination.

- a. Comply with the required Work sequence and coordination specified in Section 01002 and reflect in the Project scheduling.

Pursuant to subparagraph 7, other coordination requirements include the following.

- Coordinate with Owner and Engineer prior to performing any Work that will impact City operations.
- Coordinate Work with the City of Marlborough, Department of Public Works that may interrupt or affect the Owner’s existing system.
- Coordinate Work such that Work on each street is completed with minimum disruption to residents and businesses.

Pursuant to Paragraph B, Existing Conditions,

Pursuant to subparagraph 1, Project specific conditions, see information regarding existing conditions identified in 03000.

Add the following to subparagraph 2, existence and location of underground and other utilities and construction.

- Contact DIGSAFE (www.digsafe.com) by dialing 811.

Pursuant to Paragraph C, Field Engineering, generally does not apply to this Project.

3.05 STARTUP, TESTING AND COMMISSIONING

Pursuant to Paragraph E, Starting and Commissioning/Performance Testing, see requirements in individual Specification sections.

Pursuant to Paragraph F, Demonstration and Training, see requirements in individual Specification sections.

END OF SECTION

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SECTION 01225

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This Section describes the measurement and payment for the Work to be completed under each item included on the Bid Form.
- B. Payment procedures are in accordance with the Agreement, Article 14 of the Standard General and Supplementary Conditions, the Additional Supplementary Conditions (if any), and the General Requirements.
- C. Measurement: as determined, verified, or approved by Engineer in accordance with Paragraph 11.03 of the Standard General and Supplementary Conditions, the Additional Supplementary Conditions (if any), and the General Requirements, except as otherwise specified.
- D. The Work described in each item shall be as described in the Specifications and shown on the Drawings and not included in other items.
 - 1. Item descriptions are general and may not specifically describe all associated Work or elements thereof, do not constitute Specifications, and do not supersede the content of the Specifications and Drawings.
 - 2. Review the Specifications for Work associated with each item. Claims for being unfamiliar with the content of the Specifications will not be considered.
- E. The following Work is not specifically described or designated as an item, is considered incidental to all items, and shall not be measured separately for payment.
 - 1. General Requirements specified in Sections 01001 and 01003 except for items that may be included in Mobilization/Demobilization
 - 2. Restoration of all areas disturbed by the Contractor within the limits of Work
 - 3. Labor, materials, and equipment necessary to verify existing field conditions
- F. No compensation will be paid for damage or areas disturbed by the Contractor outside the limits of Work.

- G. Design, installation and removal of utility/structure support systems temporary and permanent utility/structure support systems be associated with an item of Work shall be considered incidental to that item.
- H. Police details will be direct billed by the police department to Owner. Provide daily detail slips to the Engineer. Police details scheduled and not used by the Contractor will be back-charged to Contractor.

1.02 MEASUREMENT AND PAYMENT BASIS FOR EACH BID ITEM

ITEMS 1A, 2A, 3A, 4A, 5A: FURNISH SINGLE JET WATER METERS	
Measurement	Units delivered and accepted
Payment	Unit price per meter
Schedule of Payment	Monthly based on quantity installed, tested and accepted
Material as specified in Section 02501 and inherent to the Work for complete Standard Installation of cold water meters.	

ITEMS 1B, 2B, 3B, 4B, 5B: INSTALL SINGLE JET WATER METERS	
Measurement	Units installed complete in place
Payment	Unit price per meter
Schedule of Payment	Monthly based on quantity installed, tested and accepted
Services and equipment as specified in Section 02501 and inherent to the Work, for complete Standard Installation of cold water meters, including conducting the necessary pre-installation investigations, gaining access to locations, removal of existing meters, removal and storage of existing registers, verifying final readings, installing and testing new meters, installing wires and making connection to MTUs, coordination with Owner's AMR system, and training. Excludes Non-standard Installation.	

ITEM 6: INSTALL OWNER FURNISHED METER TRANSMISSION UNIT ITEM 7: INSTALL OWNER FURNISHED PIT METER TRANSMISSION UNIT	
Measurement	Portion of Work completed and accepted
Payment	Unit price each
Schedule of Payment	Monthly based on quantity installed, tested and accepted
<p>Services, material and equipment as specified in Section 02501 and inherent to the Work, for complete Standard Installation of Owner furnished Meter Transmission Units (MTU) and Pit MTUs including conducting the necessary pre-installation investigations, gaining access to locations, removal and disposal of existing MTU, installing and testing new MTUs, installing wires and making connection to new water meters, furnish Neptune handhelds for testing and turn over to Owner, coordination with Owner's existing meter reading/billing system, and training. Excludes Non-Standard Installation.</p>	

ITEM 8: OWNER'S CONTINGENCY ALLOWANCE FOR NON-STANDARD INSTALLATIONS AND STATUTORY PRICE ADJUSTMENT FOR GASOLINE	
Measurement	Portion of Work completed and accepted
Payment	Percent of not to exceed contingency amount authorized
Schedule of Payment	Monthly based on progress
<p>Services, material and equipment as specified in Section 02501 and inherent to the Work, for complete Non-Standard installations of cold water meters, registers, MTUs, Pit MTUs, and appurtenances as specified in Section 02501, as recommended by Engineer and approved by Owner in a Change Order. Monthly price adjustment for gasoline per Section 00811 SC-12.01 and approved by Owner in a Change Order.</p>	

ITEM 9: OWNER'S CONTINGENCY ALLOWANCE FOR ADDITIONAL HARDWARE AND SOFTWARE	
Measurement	Portion of contingency amount authorized per Paragraph 11.02 of the General Conditions as requested
Payment	Percent of not to exceed contingency amount authorized
Schedule of Payment	Monthly based on progress
<p>Additional computer hardware and software required for deployment of MTUs and coordination with Owner's AMR System per Section 02501 as requested by Owner,</p>	

recommended by Engineer, and approved by Owner in a Change Order.

ITEM 10: MOBILIZATION/DEMobilIZATION	
Measurement	N/A
Payment	Percent of lump sum price based on the Schedule of Values excluding Items 8 and 9
Schedule of Payment	50% at Project commencement 50% at Substantial Completion
Includes delivery to and removal of Contractor's equipment and facilities at the Project Site, temporary utilities, facilities and controls, obtaining necessary permits including associated fees, insurance and bond costs, signage, development of pre-construction schedules and plans required by the General and Supplementary Conditions and General Requirements; necessary pre-construction investigations; coordination, and Site clean-up, restoration and closeout. Excludes Items 8 and 9.	

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

DIVISION 02

SITE CONSTRUCTION

SECTION 02501

COMMERCIAL WATER METERS AND METER TRANSMISSION UNITS

PART 1 – GENERAL

1.01 SUMMARY

- A. Remove existing water meters, remove existing registers from meters and store registers for a period of 12 months from the date of meter replacement. Leave existing meter with the Owner's customer ("Customer").
- B. Furnish and install new water meters with electronic registers.
- C. Install Owner furnished Meter Transmission Units (MTUs) manufactured by Neptune Technology Group, Model R900 Meter Interface Unit.
- D. Provide two Neptune CE 5320B Field Service Tools (Neptune Handhelds) for testing MTUs.
- E. Geocode each meter/MTU installation location with a latitude and longitude provided on the required work order.
- F. Remove and dispose of existing appurtenances.

1.02 PRICE AND PAYMENT PROCEDURES

- A. Measurement and payment requirements: per Division 01 General Requirements.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination, Sequencing, and Scheduling: per Division 01 General Requirements.

1.04 SUBMITTALS

- A. Submit in accordance with Division 01 General Requirements.
- B. Proposed Control and Management Plan, detailing planned procedure for the notification of Customers, procedure for scheduling of installations, installation procedures, database formats, protocol for handling non-standard installations, protocol for handling curb stops, protocol for handling repairs, and template of work order form for review prior to performing any of the notifications and installations.
- C. Shop Drawings: manufacturer's instructions, literature, illustrations, specifications, drawings, data and descriptive literature on all pieces of equipment.
- D. Performance specifications.

- E. Affidavit of compliance from manufacturers stating that the meters provided comply with the latest version of AWWA C712, as appropriate, the registers meet all requirements specified herein.
- F. Copy of the National Type Evaluation Program (NTEP) Certificate of Conformance (COC) from manufacturer certifying and listing the meter size and register type as legal for trade and the NTEP COC shall list the meter size and register type being supplied as approved for use in utility billing, commercial metering, and legal sub-metering applications.
- G. Copies of advertisements, door hangers, letters and flyers to be distributed during the contract for approval by the Owner. Once approved, submit final copies for Engineer and Owner's records.
- H. Copy of database fields and format for approval by the Owner.
- I. Meter, register, and MTU warranties.
- J. Closeout and Maintenance Material Submittals: per Division 01 General Requirements.
 - 1. Operation and Maintenance Data for each component including copies of Shop Drawings, reports, maintenance data and schedules, description of operation, and spare parts information with ordering numbers, nearest location where the spare parts may be obtained current price list for parts.

1.05 QUALITY ASSURANCE

- A. Provide in accordance with Division 01 General Requirements.
- B. Manufacturers not complying with the field or production experience must submit their meters for endurance testing evaluation.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Take delivery of associated water meters and appurtenances and provide adequate storage space to accommodate its staff, new water meters, meter hardware and any other parts or equipment necessary to conduct the Work. Return all un-used water meter equipment, MTUs, and appurtenances to the Owner.
- B. Transport adequate quantities of water meters, MTUs, and appurtenances from the storage areas to the Work Site.
- C. Store existing water meter registers in a locked, sheltered, heated, and secure location for later use in verifying final readings for a period of 12 months from the date the meter is replaced.

1.07 SITE CONDITIONS

- A. Existing Conditions: per Division 01 General Requirements.
- B. Prevent damage to the public and private property and restore damaged property at no additional cost to Owner.
- C. Photographs
 - 1. Take photographs of installation locations both before and after the installation. Label photographs, by file name, with the date and meter address of photograph (YYYYMMDD – METER ADDRESS). Photograph file names: date, street location, followed by street number, followed by a suite or apartment number if appropriate, followed by “B” for before and “A” for after. Uniquely identify each photograph.
 - 2. Pre-installation photographs: minimum of 2 digital photographs including a photograph of the existing meter, in place, prior to removal, and a photograph of the meter register that clearly displays the final meter reading. Post-installation photographs: minimum of 2 digital photographs including a photograph of the new meter, in place, and a photograph of the meter register that clearly displays the initial meter reading. Take photographs of any notable “Miscellaneous data” as described in Paragraph 3.16.A. Use a dry-erase board or other acceptable means of indicating the Customer account number, meter number, meter reading, date and “before” or “after” status and include in photographs.
 - 3. Minimum resolution: 6.0 megapixels and stored in JPEG format.
- D. Submit digital photographs of the installation location taken before and after the installation with the weekly reports to Engineer on CD.

1.08 WARRANTY

- A. Special Warranties/Extended Correction Period: in accordance with Section 00805 of the Additional Supplementary Conditions.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Provide meters compatible with Owner’s existing R900 AMR System by Neptune Technology Group.
- B. New meter data: in a format suitable for upload to the Owner’s MUNIS billing system.
- C. Provide water meters complete with an electronic register that meet the American Water Works Association (AWWA) standards C712, C707, and NSF 61.

- D. Meter materials: in conformance with the 2014 Safe Water Drinking Act future requirement of no lead or less than 0.25 percent (0.25%) lead content.
- E. Provide Meters and registers that allow for and be compatible with future upgrades of the manufacturers' product.
- F. Provide Meters and registers fabricated by the same manufacturer.
- G. Performance
 - 1. Provide meters conforming minimally to current AWWA C-712 test flows, headloss and accuracy standards. Provide a factory test tag certifying the accuracy at the flows required by AWWA C712 to ensure accuracy.
 - 2. Provide meters that operate up to a working pressure of 230 pounds per square inch (psi), without leakage or damage to any parts and with accuracy not be affected by variation in pressure up to 230 psi.
 - 3. Meet the flow ranges indicated in Table 1.

**2.02 WATER METERS –COLD WATER SINGLE JET WATER METERS
(1-1/2 - INCH TO 6-INCH)**

- A. General
 - 1. Meters, 1-1/2-inch to 6-inch: meet or exceed the performance required by the “Cold Water Meters Single Jet Type” – AWWA-C712, or as otherwise specified. Meters shall conform minimally to current AWWA C-712, for test flows, headloss and accuracy standards.
 - 2. Single Jet Commercial Type meters: ISO-4064-1 Class B approved high performance standard and AWWA C712 Standard Cold Water Meters-Single Jet, as most recently revised.
 - 3. Meters: NSF 61 Certified for Low Lead (less than 0.25 percent).
 - 4. Cold water meters: produced from an ISO 9001 manufacturing facility and be certified to the National Conference on Weights and Measures (NCWM) regulatory standards.
 - 5. Furnish meters with spools, spacers, or other pipeline hardware to meet the laying length required for complete meter installation (replace existing 1.5-inch through 6-inch meters with single jet meters). Provide necessary spool pieces, flanges, couplings and/or accessories, to make up any difference in lay length between the new meter and the existing meter.
 - 6. Equip Single Jet meters with a test port spool piece.
 - a. 1.5-inch and 2-inch meters: one inch test port.
 - b. 3-inch meters and larger: two inch test port.

7. Determine the size of the meter assembly based on the nominal size of the opening of the inlet and outlet flanges of the meter.
8. Meet the performance specifications outlined in Table 1 and submit documentation as evidence of compliance.

Table 1 – AWWA Meter Flow Rate Requirements

METER SIZE	Low Flow Accuracy (95-101.5%)	Normal Flow Accuracy (98.5% TO 101.5%)
1.5 inch	0.50 GPM	1.50-100 GPM
2 inch	0.50 GPM	2.00-160 GPM
3 inch	0.50 GPM	2.50-320 GPM
4 inch	3/4 GPM	3.00-500 GPM
6 inch	1.5 GPM	4.00- 1,000 GPM

B. Type – Commercial Cold Water Single Jet Meter

1. The meter shall utilize only one (1) measuring element (impeller) to achieve the performance shown in Table 1. No meters using two (2) or more measuring elements, such as combination meter or compound meters shall be accepted. Meters shall operate accurately with no straight run of pipe before or after the meter. Meter operation shall be unaffected by sand or other particulate material in the line. The manufacturer must warranty meter operation and accuracy with no strainer installed.
2. Lay Length and Connections: AWWA Standard C712 (latest revision)
3. Meter Maincase
 - a. Lead free and guaranteed free from manufacturing defects in workmanship and material for the life of the meter.
 - b. The main case shall be made of a non-corrosive material and NSF 61 certified for low lead (less than 0.25%) and shall withstand a working pressure of 230 psi without seeping or distortion affecting the free operation of the measuring unit. The direction of flow, meter size, serial number and year manufactured must be permanently indicated on the case. The serial number shall be stamped between the inlet or outlet port of the maincase and the register. Maincase markings shall be cast raised and shall indicate size, model, direction of flow, and NSF 61 certification. Plastic maincases are not acceptable.

C. Bolts: 300 series non-magnetic stainless steel

D. Register

1. Equip meters with a factory-installed tamperproof, electronic register with embedded cellular modems and prepaid service plans, 3-wire AMR output and data logging capabilities, hermetically sealed and firmly attached to meter case.
 2. Provide with eight digit display in cubic feet, with programmable AMR 3 wire output and datalogging capability higher than one cubic foot resolution.
 3. Register battery: rated to last a minimum of 10 years.
 4. Internal components: non-corrosive construction.
 5. Provide registers readily adaptable to various radio frequency AMR products without the need for on-site register programming. Furnish with a test sweep hand and/or a leak indicator.
 6. Provide manufacturer warranty that registers are compatible with the Owner's existing AMR System.
- E. Strainers: only required for meter addresses identified in the List of Meters included in Section 00300.
- F. Change Gears: Do not use to calibrate the meter.
- G. Pressure test meters to provide evidence of capability to meet working pressure of 230 psi, without leakage or damage to any component

PART 3 – EXECUTION

3.01 CUSTOMER NOTIFICATION AND APPOINTMENT SCHEDULING

- A. Perform installation at the convenience of the Customer. Make appointments in a courteous and professional manner during reasonable hours, via letter notices, door hangers, telephone calls, post cards, door-to-door solicitation or by additional letters. Supply a sufficient number of toll-free telephone lines to receive all incoming requests for appointments 24 hours a day, seven days a week that is suitable for handling calls for both field support and appointments. Provide appointment scheduling on a website.
- B. Update the spreadsheet of available information containing Customer name, owner address, meter address, account number, and meter size to gather any/all missing information required to schedule meter replacements. Verify the meter sizes during pre-inspections, and update the aforementioned spreadsheet as new information becomes available.
1. To expedite the installation Project, the Owner will advertise the Project in the local paper of record and provide a Project overview on the Owner's website, publicizing the Project.

- C. Attain entry into the businesses and residences. Obtain phone numbers for the Customers if phone calls are required.
 - 1. Make four attempts within a three week timeframe to schedule an installation. First three attempts: first, second, and final written notices mailed to both the meter address and the owner's address. Mailings: first class originating from Massachusetts. Fourth attempt : use of a door hanger.
 - 2. Provide that content in notices and door hangers and associated paper color is approved by Owner prior to distribution.
 - 3. Maintain a database record of attempts made that includes date, time, type of contact attempted for each account, and additional information required by the Owner. Submit sample database to the Owner for approval prior to population of the database.
- D. A "lockout" will be declared after four or more unsuccessful attempts to schedule an installation in accordance with Paragraph C above. If a "lockout" occurs:
 - 1. Make at least three visits within a two-week timeframe; one visit on a weekday in the morning, one visit on a weekday after 6:00 PM, and one visit on a Saturday. Leave a door hanger after each contact attempt, color coded differently for each attempt, explaining the purpose of contact, together with a toll-free telephone number and email address where the Contractor should be reached to schedule an appointment. Submit a sample of the notice to the Owner for approval prior to the first visit.
 - 2. If a telephone number for the water Customer is available, continue to attempt to contact the Customer or Owner at least three times over a two-week period. If the Customer has not responded after three documented telephone contacts, add the Customer's information to the database and provide the Owner and Engineer with a complete listing of the no response contacts on a monthly basis. The Owner will then be responsible for scheduling the installation on the Contractor's behalf.
- E. If returned mail is received, notify the Owner prior to future mailings. If Owner provides an updated address, note the updated address in the database and send out future mailings with the updated address.
- F. It is expected a large percentage of installations will result from door-to-door solicitation. Use the following procedure for door to door contact.
 - 1. Attempt to contact the Customer by ringing the doorbell or knocking on the door only. Do not knock on windows.
 - 2. If Customer is present, inform them of the Meter Installation Program and attempt to complete installation. If installation cannot be accomplished due to Customer inconvenience, schedule an appointment while on Site. Do not threaten any Customer with termination of service or any other action for failure to comply with the installation.

3. Do not enter a residence without permission or presence of an adult, of age 18 or older.
 4. If Customer is not present, leave an approved door hanger notice in a visible location. Do not leave notices in the mail box.
- G. If some Customers are not accessible during daytime working hours, be available during evening hours and on weekends to accommodate Customers' reasonable requests for appointments, per approval by the Owner, on a case by case basis, at no additional cost to Owner.
- H. Immediately notify the Owner of vacant or abandoned premises determined by documenting the lack of an electric meter head.
- I. Delays caused by non-responsive Customers, no-show appointments, or repeat visits shall be at no additional cost to Owner.

3.02 NEWSPAPER ADVERTISEMENTS

- A. Place informational advertisements for the Project in the local newspapers on a monthly basis at no additional cost to Owner with wording and format approved by the Owner.

3.03 PERSONNEL AND IDENTIFICATION

- A. Provide a qualified project manager to oversee the Project and personnel that are of acceptable character and personality for meter replacement Work that involves unsupervised entry into homes or businesses.
- B. Provide that employees who may have direct supervised and or/unsupervised contact with any Customers of the Owner have complete pre-employment drug and alcohol screening tests, and criminal background checks (CORI and SORI), and submit this information to the Owner. Register installers with the local police department prior to commencement of the Project.
- C. Provide names, photographs and social security numbers of all installers to the Owner. Notify the Owner of any changes to the list of personnel during the Project.
- D. Provide that personnel assigned to the Project wear an approved company uniform, have an approved picture ID, and wear a meter installer badge showing the Owner's Project information.

3.04 VEHICLE IDENTIFICATION

- A. Provide that vehicles used display identification visible from/on both sides of the vehicle at all times that is acceptable to the Owner.

3.05 WORKING HOURS, ENTRY AND CONDUCT

- A. Work may be conducted during ALL hours of the day, seven days a week, provided that consent of the Customer is obtained and it does not create a nuisance or disturb the peace. Have a crew available to perform night installations where service interruption is not allowed before 10 PM. Conduct Evening and weekend Work at no additional cost to Owner. Coordinate Work with the Owner and the Engineer on a daily basis. Reschedule “no-show” properties at no additional cost to the Owner.
- B. Do not perform any Work in the building other than that required to complete the meter and MTU replacement.
- C. Do not solicit any additional business from the Owner’s Customers. Ensure personnel do not accept payment for Work or tips during the meter replacement or building inspection.
- D. Do not request use of Customer's sanitary facilities.
- E. Inappropriate conduct shall be grounds for termination of the Contract. Investigate reports of lack of courtesy or workmanship within 24 hours.

3.06 COMMUNICATIONS/EMERGENCY RESPONSE

- A. Provide a 24 hour answering service capable of handling the call volume and complete with emergency personnel to respond to any emergency that may arise within 30 minutes. Correct problems as Owner directs within four hours of notification. Cost incurred by Owner due to non-responsiveness will be borne by Contractor.

3.07 PROGRESS REPORTING

- A. Provide weekly installation reports to the Owner which include, but are not be limited to, work order number, account number, installation date, account address, MTU number, new meter number, new meter size, old meter number, old meter size and old meter reading, and other information may be requested by the Owner.

3.08 MTU INSTALLATION

- A. Prepare for unforeseen possibilities, such as the case where premises already have an R900 (MTU) installed, which shall remain. In such a case, test the existing MTU for proper operation. If the MTU is faulty, remove the existing MTU and install a new MTU.
- B. If an alternative reading device is encountered, remove and legally dispose of such existing devices and replace with a Neptune R900 MTU.
- C. Install and activate the MTUs concurrently with water meter installation Work.

- D. Seal MTUs with a tamper resistant seal and provide watertight connections. Seal mounting holes in the building and make watertight.
- E. Install and connect the wire to the new meter/register and program the MTU. Provide a strain relief loop around the meter head and secure wiring with anchors or cable ties.
- F. Verify MTUs are properly transmitting data to the meter reading system. When connected to the subject water meter, the MTU shall automatically detect or require minimal programming to read the meter. Once the MTU is connected and activated to the meter reading system, verify the installed MTU is reading properly and the data is being received using the Neptune handheld to ensure proper installation. Turn over Neptune handhelds the Owner at the completion of the Project.
- G. If it is determined that the MTU or MTU installation is faulty, immediately correct, replace, and install equipment at no additional cost to the Owner. Following repair and/or correction of the system components, retest the system as described above. Maintain a list of faulty MTUs, provide to Owner, and document repairs in accordance with Article 3.15.
- H. Clean any and all debris from the Work area and store tools.
- I. Install MTUs on the outside of the building a minimum of 36 inches above grade, strategically located so they will easily communicate with the Owner's meter reading system and also be accessible to maintenance personnel. DO NOT locate MTUs near any large metallic objects that can impede the radio signal.
- J. Take care to conceal any wiring or gel-cap connectors. Take steps to minimize the use of splices in the wiring between the MTU and the meter in all cases. If outside placement of the MTU is not feasible, place the MTU inside in an accessible location acceptable to the Owner and Customer.

3.09 MTU PIT INSTALLATION

- A. Comply with the requirements specified in Article 3.08, paragraphs A through H, for MTU Pit installations.
- B. Owner has a quantity of pit set meters that require replacement. Pit covers may consist of heavy cast iron, non-metallic concrete, light gauge steel, and light gauge aluminum construction. Install per manufacturer's recommendations for each type of environment. If required, coordinate with the manufacturer to provide training on the proper installation of the MTUs in a pit environment.
- C. Install the MTU either under the existing meter cover or through the existing meter cover. Install the MTU antenna installed through light gauge steel or aluminum pit covers unless this presents some form of traffic or pedestrian tripping hazard. If there is any question about placement of the MTU, the consult with the Owner to determine the best location for the MTU.

- D. There may be instances where the MTU must be installed away from the meter pit such as in high traffic locations or where the existing cover is of heavy cast iron type construction that will not permit good meter reading integrity. In these instances, prepare to make saw cuts or perform excavation to run the wiring from the meter to the mounting location for the MTU. Additional Work required to mount the MTU shall be pre-approved by the Owner and will be considered Non-Standard Installation.

3.10 WATER METER INSTALLATION

- A. Conduct pre-inspections to confirm the type and lay length of the existing meter. During the pre-inspection, determine the required lay length so that proper spool piece(s) will be on Site when meter replacement occurs. Inspect the Site for any possible issues that will be encountered during meter replacement. If any potential issues are observed, notify the Engineer so that the issue can be resolved prior to meter installation. Delays caused by failure to conduct a pre-inspection shall be borne by the Contractor.
- B. If requested by the Owner, Engineer, or Customer, provide temporary water bypass to the property during the meter installation process which will be considered a Non-Standard Installation. Furnish, install, and remove pipe and fittings required to provide temporary water service. Submit proposed temporary bypasses to the Engineer for approval prior to installation.
- C. Make a determination upon entry to the building that there are no branches or connections to the service line between the point of entry and the water meter. Do not have to move any equipment, furniture, appliances, or other articles to access the meter setting. Depending on the findings upon initial entry and inspection, meter replacement will fall into one of the classifications as listed below:
 - 1. Standard Installation: A standard setting will have an operable valve at the meter, or an operable curb stop or a service that can be frozen. The service line shall be free of any connections before the service valve. The condition of the service line shall be of sufficient integrity to allow a meter installation without causing damage to the service line. The MTU shall be installed on the exterior within 50 feet of the meter register. If exterior installation of the MTU is not feasible as standard and/or non-standard installation classification, the MTU may be installed in the interior of the building.
 - 2. Non-Standard Installation: Any settings that have conditions present where a Standard Installation cannot be performed. These are special or unusual cases that may include moving drain taps or fixtures, preexisting leaks at or near the meter connection, finished basements with paneling requiring extensive extra wiring, or a restricted indoor space which will not allow an installation without rearranging plumbing. These situations, shall be considered Non-Standard and referred to the Owner for further

review. Do not pursue Non-Standard Installation Work without advance written approval of the Owner.

- D. Remove existing meters and install new meters per the manufacturer's specifications and installation instructions. Ensure new meter installations are free of leaks and defects.
- E. Wire seal the register head, meter screws, and seal both meter tailpieces with a tamper resistant plastic protector meter seal upon the completion of testing.
- F. Test each meter installation upon completion by running water through the meter and observing that the register operates. Should the water meter fail to operate during the test, remove the newly set meter and install another new meter in its place. Coordinate with the meter vendor to exchange the faulty meter for a replacement meter. Maintain a list of faulty meters, submit to the Owner, and document repairs in accordance with Article 3.15.
- G. Obtain a final meter read on the existing meter prior to replacing it with a new meter.
- H. Coordinate with Customers to resolve any plumbing issues caused by the meter installation, including rusty water, debris removal from sink screens, debris removal from toilet diaphragms, etc.
- I. Upon completion of the installation Work, complete the approved installation work order to ensure accurate recording of required information.
- J. Prior to leaving the premise, provide the Customer with written explanation of meter operation, Contractor contact information and notification period for defects due to the Work.
- K. Take photographs of the installation location after the installation in accordance with Article 1.07.
- L. Clean the Work area after the meter installation is complete and handle any water discharged during the meter installation process. Prevent damage or destruction of property during the meter replacement and MTU installation process. Repair any damage at no additional to cost to Owner and at no expense to Customer.

3.11 CURB STOPS

- A. If the inside valve is not capable of a shutdown, locate, clean-out, and shut off the curb stop. Provide that each crew carries, a minimum, a metal detector, a gate key to operate the curb stops, a picker to pull material from curb stop risers, 8-foot and 10-foot valve wrenches for deep services, appropriately sized pipe crimper(s) and rounder(s) available during installations and a compressor to blow out debris from curb stops. Repair any damage at no additional to cost to Owner. Note accounts requiring curb stop operation. If a curb stop is deemed inoperable freeze the service with appropriately experienced staff. Repair damage caused to the pipe during the freezing and thawing process at no additional cost to Owner.

3.12 WARNING STICKER

- A. Install a tamper proof warning sticker on the water meter and the MTU device that clearly advises the Customer of penalties in the event of damage or tampering. Provide stickers that tear if equipment is tampered with.

3.13 REMOVAL OF EXISTING METERS

- A. Remove meter registers from existing water meters being removed. In cases where electrical grounds need to be removed, provide the services of a licensed electrician to perform the Work. Leave existing meters at the Customer location. Transport and store removed water meter registers in a locked, sheltered, heated, and secure location for later use in verifying final readings for a period of 12 months from the date the meter is replaced.
- B. Take responsibility for any lost or stolen meter registers during this period. Identify registers by Customer account number and store all existing meter registers for a period of 12 months from the date of meter replacement. Pull registers, as required, from storage to verify final readings. **Failure to record the final reading may result in the Contractor being responsible for payment of the Customers' final water and sewer bill.**
- C. After the 12 month period, legally dispose of meter registers and demolition debris (wire, conduit, pipe, etc.).

3.14 INSTALLATION DOCUMENTATION AND PROGRESS REPORTING

- A. Prepare three copies of documentation of meter and MTU installations on a Meter Installation Form for submittal as follows:
 - 1. One copy to the Engineer within one week of completing each installation in both electronic and hard copy form.
 - 2. One copy to the Owner within one week of completing each installation.
 - 3. One copy retained by the Contractor.
- B. Provide the following minimum data in a layout acceptable to the Owner.
 - 1. Old meter removed: location of meter, date of installing replacement, size and type of meter, manufacturer, serial number, and final reading.
 - 2. New meter and MTU installed: location within the building, date of installation, manufacturer, size and type of new meter, condition of existing valves, size and type of backflow preventer (if applicable), serial number, MTU identification number, meter brass number, and initial reading (following all testing). Utilize bar code tags affixed to the meter and/or MTU whenever possible by removing the tag(s) and affixing them to the work order form. Affix new meter test tags to the work order.

3. Miscellaneous data: inoperable valves (curb stops), corroded pipes, presence of electrical ground connections (for example, service pipes that are grounded to the building's internal electrical system), condition of water service, unusual situations, and extra parts required to complete the installation, etc.
4. Latitude and Longitude of the installation address. Datum: NAD83.
5. Start and end times for the installation.
6. Additional information requested by the Owner.
7. Repairs: Items 1 through 5 shall apply. In addition, documentation shall note "Repair" at the top of the page and the type of repair. Attach a copy of documentation for all previous installations for the given account.

C. Summary Progress/Installation Reports

1. Provide the Owner and Engineer with electronic summary progress reports containing, at a minimum, the following information:
 - Customer names, addresses and account numbers.
 - Appointment scheduling and installation production status.
 - Listing of accounts that have been non-responsive or have refused entry. For accounts that have been non-responsive, the listing must also include documentation of attempts to contact the Customer as required in this Specification.
 - Listing of accounts where the meters are not transmitting a reading, or are not functioning properly, even after the corrective measures described have been taken.
 - List of "problem" accounts where meters and/or MTUs could not be installed due to conditions such as blocked access to meter, faulty plumbing, meter sizing issues, or any other situation that prevents the Contractor from installing a meter or MTU.
 - List of accounts with inoperable valves (curb stops).
2. Submit summary reports to Owner and Engineer on a weekly basis with the information broken down daily via email in PDF format and on a CD. Weekly summary reports are a condition for payment.

3.15 REPAIRS

- A. Owner or Engineer will notify Contractor weekly of repairs that are required to be completed. Contact Customer to gain access to complete the repair and complete within five working days from the day the Contractor received notification from the Owner or Engineer.

3.16 OPERATION AND MAINTENANCE TRAINING

- A. Prepare material and provide minimum of 24 hours training to Owner field and office staff on aspects of product installation and system operation, mounting, wiring and testing the MTU units to the water meter. Coordinate with Owner for location and time of training.

END OF SECTION

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